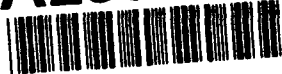


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DOCUMENTATION PAGE

Form Approved
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1a. RESTRICTIVE MARKINGS			1b. RESTRICTIVE MARKINGS		
2a. DECLASSIFICATION / DOWNGRADING SCHEDULE			3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution unlimited.		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S) AFOSR-TR- 91 0534		
6a. NAME OF PERFORMING ORGANIZATION Air Force Office of Scientific Research		6b. OFFICE SYMBOL (if applicable) XOTD	7a. NAME OF MONITORING ORGANIZATION AFOSR		
6c. ADDRESS (City, State, and ZIP Code) Building 410 Bolling AFB DC 20332-6448		7b. ADDRESS (City, State, and ZIP Code) Building 410 Bolling AFB DC 20332-6448			
8a. NAME OF FUNDING / SPONSORING ORGANIZATION AFOSR		8b. OFFICE SYMBOL (if applicable) XOTD	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER IN-HOUSE		
8c. ADDRESS (City, State, and ZIP Code) Building 410 Bolling AFB DC 20332-6448		10. SOURCE OF FUNDING NUMBERS		Accession For	
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Research Proposal Quarterly Status Report			By Distribution		
PERSONAL AUTHOR(S) Debra L. Tyrrell			Availability Codes		
12. TYPE OF REPORT Quarterly		13b. TIME COVERED FROM TO	14. DATE OF REPORT (Year, Month, Day)		15. PAGE COUNT
16. SUPPLEMENTARY NOTATION			A1		
17. COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD GROUP SUB-GROUP					
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This research proposal status report is published quarterly as of March, June, September, and December of each year.					
DISTRIBUTION / AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL DEBRA L. TYRRELL			22b. TELEPHONE (Include Area Code) 202-767-0912		22c. OFFICE SYMBOL XOTD

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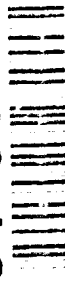
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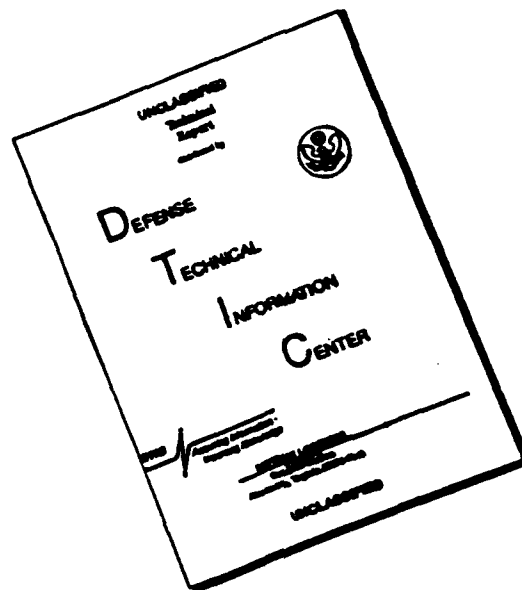
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RESEARCH PROPOSAL

QUARTERLY STATUS REPORT

APRIL 1991

INTRODUCTION

The Research Proposal Quarterly Status Report is published in March, June, September, and December by the Air Force Office of Scientific Research (AFOSR). It lists all the research proposals received by AFOSR in the previous six months along with the action taken (Initiated, Declined or Withdrawn) on each report.

The report is divided into two parts. The Institution index lists proposals alphabetically by institution. This is followed by a more detailed listing by Directorate, and by Program Manager within the Directorate.

PURPOSE

This report is designed to inform other Government sponsoring agencies of the proposals received by the AFOSR and the action taken on these proposals. Readers must keep in mind that declined proposals should not necessarily be considered as scientifically unacceptable; many declinations result from a lack of funds or as a result of special programmatic emphasis.

AFOSR MISSION

The Air Force Office of Scientific Research (AFOSR) is the single manager of the Air Force Defense Research Sciences Program (Program Element 61102F) and the primary Air Force agency for the extramural support of fundamental scientific research. The AFOSR is organized under the Air Force Systems Command, DCS/Technology.

AFOSR awards grants and contracts for research in areas of science relevant to the needs of the Air Force. Research is selected for support from proposals received in response to the Broad Agency Announcement from scientists investigating problems involving the search for new knowledge and the expansion of scientific principles. Selection is on the basis of scientific potential for improving Air Force operational capabilities, originality, significance to science, the qualification of the principal investigators, and the reasonableness of the proposed budget.

KEY TO READING THE DATA

TITLE - The title of the research proposal

INSTITUTION - The organization, (e.d., college/university, company) at which the research will be conducted.

INVESTIGATOR - The Principal Investigators proposing the research.

TYPE - N indicates a new research effort.

- R indicates a continuation of an ongoing research effort.

MONTHS - The duration of the research proposal.

RECEIVED - The month and year in which the AFOSR received the proposal.

AMOUNT - The funds requested of the AFOSR for support of the research proposal.

STATUS - A = ACCEPTED indicates that the review has been completed and the proposal recommended for funding.

- D = DECLINED indicates the proposal has been reviewed but will not be funded by the AFOSR.

- BLANK SPACE = indicates the proposal is being reviewed.

- W = WITHDRAWN indicates that the proposal submitted was removed from further consideration at the proposers request.

PROGRAM MANAGER - The AFOSR scientific staff member assigned the responsibility for the technical evaluation of the proposal.

PROPOSAL # - An AFOSR Directorate assigned control number to uniquely identify the research proposal.

INITIATE - The proposal has been recommended to the AFOSR Directorate of Contracts for the amount and duration.

START DATE - The recommended date for commencement of the research.

TOTAL AMOUNT - The estimated number of dollars recommended for support of the research effort; the actual amount is subject to negotiation.

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BOLLING AIR FORCE BASE, DC 20332

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Dr Leonidas Sakell	4935
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Dr Julian Tishkoff	0465
Dr James McMichael	4936
Lt Col Steven Boyce	6963
Dr Dan Fant	0471
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PART 1

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INSTITUTION	INVESTIGATOR	PROPOSAL	STATUS	PM NAME
LAST NAME	FIRST NAME	MIDDLE		
APA Optics Inc	Khan			SCHLOSSER
Abtech Corporation	Grake	C		SJOGREN
Adelphi Technology, Inc.	Piestrup	A	A	SCHLOSSER
				SCHLOSSER
Advanced Fuel Research Inc.	Fenner		A	WEINSTOCK
Advanced Projects Research Inc	Pepper			FANT
Advanced Technology Materials Inc.	Chen		A	SCHIOLER
	Lin			WITT
Aerospace Medical Research Laboratory	LeClair	R	A	GLASSMAN
	Watson		A	NACHMAN
Air Force Armament Laboratory	Cobb		A	BARKER
Air Force Institute of Technology	Bridgman		A	EWING
Air Force Office of Scientific Research	EWING	J		EWING
Air Force Weapons Lab	Majes	C		EWING
			A	SAKELL
			A	MCMICHAEL
Alcorn State University	Edney			CERVENY
Alphatech Inc	Tenny	A	A	SJOGREN
American International Technology, Inc.	Makolopulos			SCHLOSSER
Amparo Corporation	Grand			LEE
Applied Polymer Systems, Inc.	Reddy	V		LEE
Applied Science, Inc.	Lake	L		LEE
			A	SCHIOLER
				LEE
			A	SCHIOLER
Applied Technology Associates, Inc.	Ting			FANT
Antek Inc.	Cavallieri			FANT
Argosystem Inc	Sanderson	C		NACHMAN
Arizona State University	McCarthy		A	NACHMAN
	Nicolaenko	M		SAKELL
	Reed	L		GLASSMAN
	Sen		A	CAVENDER
ARMY Research Office	Neece	A		SCHLOSSER
Astralux	Fry	L		WITT
Astron Corporation	Barrett			SCHLOSSER
Atomic Engineering, Cor	Lu	T		BURGGRAF
Auburn University	Baker	K		BURGGRAF
	Tatarchuk	J		NACHMAN
	Tolimieri			CERVENY
	Grippo	L		LEE
	Simo			HEDBERG
Amere, Inc.	Grund	D		CRAIG
COTRAX, Inc.	Babbitt	R		STOBIE
Geltran Inc	Forbes	M		CRAIG
Biotechnical Resources INC	Lempicki			NACHMAN
Boeing Aerospace & Electronics Co.	Levi			SJOGREN
Boston University	Pinsky			SCHIOLER
	Sheldon		A	FANT
Crown University	Philip			
CFU Laboratory				

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

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INSTITUTION	INVESTIGATOR	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
CFR Research Corp.	Yang	H Q			91-NA-089		FANT
California Institute of Technology	Grubbs	Robert		H	91-NA-073	A	FANT
	McKoy	Vincent			91-NC-093		HEDBERG
Calspan-U3 Research Center	Holden	Mike			91-NC-107	A	BURGGRAF
		Michael		S	91-NA-108	A	SAKELL
		Brian		G	91-NA-117	A	SAKELL
Cape Cod Research, Inc.	Dixon				91-NE-063		POMRENKE
					91-NL-059		CERVENY
Carnegie-Mellon University	Readey	Michael		J	91-NE-106		SCHIOLER
Cascade Applied Sciences Inc	Larsen	Jon		T	91-NP-077		SCHLOSSBER
Ceracon Inc.	Ramas			V	91-NC-083		LEE
Chi-Wang Shu	Shu	Chi-Wang			91-NA-086		FANT
Chimera Research	Dougherty	F Carroll			91-NA-090		FANT
City College - CUNY	Li	Yao			91-NE-047		CRAIG
Clemson University	Larsen	M.		F	91-NC-113		STOBIE
Cognitech Inc	Rudin	Leonid		M	91-NM-128	A	SJOGREN
Colorado School of Mines	Readey	Dannis			91-NE-042		SCHIOLER
Colorado State University	Chandrasekar	V		S	91-NC-121		STOBIE
Columbia Research Instruments Corp.	Roberts	Rosemary			91-NP-055		SCHLOSSBER
Columbia University	Turro	Nicholas		J	91-NC-134		HEDBERG
Competitive Solicitation					91-XO-010	A	CAVENDER
Complere Inc	Owen	F K		T	91-NA-055		FANT
Computational Mechanics Company Inc	Stowers	Steven			91-NA-050		FANT
					91-NA-062		FANT
Computational Mechanics Corporation	Iannelli	Giuseppe		I	91-NA-057		FANT
Computational Physics System	Jiang	Bo-nam			91-NA-091		FANT
Continuum Dynamics, Inc.	Quackenbush	Todd		R	91-NA-052		FANT
Cornell University	Bland	Robert			91-NM-164	A	GLASSMAN
	Huttenlocher	Daniel		L	91-NM-156	A	GLASSMAN
	Madsen	Eugene			91-NL-034		CERVENY
Creare Inc. Research & Development Inc	Murthy	Jayathi		Y	91-NA-064		FANT
Crystallume	Landstrass	Maurice			91-NE-052		POMRENKE
	Pinneo	J. Michael			91-NC-076		LEE
Cudo Technologies, Ltd.	Baker	John			91-NA-089		FANT
Darough Growth Engineering & Managmt Srv	Daryoush	Afshin		S	91-NE-085		WITT
Davis Research, Inc.	Davis	Robert		G	91-NL-061		CERVENY
Deacon Research	Bramford	Douglas		J	91-NP-054		SCHLOSSBER
Delphi Groupe, Inc.	Gauny	R.		D	91-NL-062		CERVENY
Directed Technologies, Inc.	Kuhn, Jr.	Ira		F	91-NP-083		BARKER
Display Tech, Inc	Thornes	William		N	91-NC-075		LEE
Drexel University	Popovics	Sandor			91-NA-068		WU
Ecdynamics Research Association Inc	Roache	Patrick		J	91-NA-053		FANT
Eidetics International Inc.	Ng	T Terry			91-NA-049		FANT
		T Terry		A	91-NA-051		FANT
Enlighten	Eckert	John			91-NE-075		POMRENKE
Enzyme Technology Research Group, Inc.	O'Daly	John		P	91-NL-064		CERVENY
FASTMAN, Inc.	Tucker	Michael			91-NM-147		SJOGREN
Florida A&M University	Jones	Herbert		M	91-NC-065		BURGGRAF

INSTITUTION	INVESTIGATOR	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Lockheed Missiles & Space Co Inc	Imhof	W.		L	91-NC-115		STOBIE
	Rajhavan	Rajhu			91-NM-150		NACHMAN
Long Linda University	McMillan	Paul			91-NE-099		SCHIOLER
Los Alamos Scientific Lab (Calif Univ)	Dowell	C.			91-NC-082	D	BURGGRAF
Louisiana State University	Tayal	Swaraj		S	91-NP-085		KELLEY
METSAT Inc	Vonder Haar	Thomas		H	91-NC-110		STOBIE
TRW Inc.	Reynolds	George		H	91-NE-067		SCHIOLER
					91-NE-069		SCHIOLER
Hanne Siegbahn Institute of Physics	Larsson	Mats		R	91-NC-079		BURGGRAF
Massachusetts Institute of Technology	Akylas	Triantaphyllos			91-NM-200		NACHMAN
	Suyukozturk	Oral		F	91-NA-115		WU
	Dresselhaus	Gene			91-XO-009	A	BOLAND
	Lee	Min-Chang			91-NC-123		STOBIE
	Mitter	SanJoy		K	91-NM-121	D	JACOBS
	Tedrow	Paul		M	91-XO-011	A	BOLAND
	Witt	August		F	91-NE-114		WITT
	Callance	Jonn		D	91-NE-041		SCHIOLER
Materials Research Society					91-NE-060	D	SCHIOLER
					91-NE-034	A	WITT
					91-NE-083		POMRENKE
					91-NF-095		POMRENKE
					91-NL-031		CERVENY
Michigan State University	Tien	H. Li		C	91-NP-072		SCHLOSSBER
MicroOptics Technologies, Inc.	Guchholtz	Jeffrey		C	91-NE-062		POMRENKE
	Guchholtz	Jeffrey		A	91-NC-091		LEE
Midwest Research Technologies, Inc.	Draener	Norman			91-NA-058		FANT
Mission Research Corp	Bottone	Steven			91-NC-085		LEE
Moltech Corp	Dorfman	V. F.			91-NM-193		NACHMAN
Montana State University	Dockery	Jack		D	91-NP-050		SCHLOSSBER
Multilayer Optics & X-Ray Technology Inc	Reyes-Mendi	Arturo			91-NP-049	A	MCMICHAEL
	Wang	Qi		S	91-NA-094	A	MCMICHAEL
NSA - Ames Research Center	Rogalia	Robert			91-NC-101		STOBIE
					91-NC-127		STOBIE
NSA - Goddard Space Flight Center	Canuto	V.			91-NC-085		LEE
	Einaudi	Franco		C	91-NP-033	A	HOLLAND
Paraphase Technologies Corp.	Parker	John			91-NA-072	A	BOYCE
National Academy of Sciences	Burke	Kevin			9 - NP-039	A	BARKER
	Metzger	Norman			91-NA-075	A	BOYCE
	Saeallie	Peter			91-NA-075	A	TISHKOFF
	Taylor	Konold		D	91-NP-089	A	LEWKOWICZ
National Inst. of Standards & Technology	Chuang	Tze-jer			91-NC-132		STOBIE
National Science Foundation	Grosshandler	William			91-NC-114		BURGGRAF
	Wall	Daniel		I	91-NP-090	A	LEWKOWICZ
	Neta	Beny		L	91-NM-122		SJOGREN
Naval Post Graduate School	Ganguli	Gurudas			91-NP-097		RADOSKI
Naval Research Laboratory	Singer	Irwin					
	White	Joe					
	Greenwood	Dan					
Metrolitics, Inc	Goode	Philip					
New Jersey Institute of Technology							

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INSTITUTION

PM NAME

STATUS

PROPOSAL

INVESTIGATOR

FIRST NAME

MIDDLE

New York University

Lawrence T

91-NL-063

HADDAD

Pease

Robert

91-NM-202

HOLLAND

Papanicolaou

George

91-NM-178

NACHMAN

Snapple

Robert

91-NL-070

HADDAD

Snodgrass

Joan

91-NL-049

FREGLY

Williamson

Samuel

91-NL-077

FANT

Childs

Robert

91-NA-060

SAKELL

Nixon

David

91-NA-054

SAKELL

Lobby

Gary

91-NM-161

WAKSMAN

Owusu-Ofori

Samuel

91-XO-015

CAVENDER

McRae

C Scott

91-NA-096

SAKELL

Fischer

Allan

91-NC-103

BURGGRAF

Hannon

Patrick

91-NL-072

HADDAD

Perko

Lawrence

91-NM-115

NACHMAN

Dunkerton

Timothy

91-NC-124

STOBIE

Elisi

Donald P

91-NC-125

STOBIE

McKoon

Gail

91-NL-047

FREGLY

Abey

Robert

91-NC-143

STOBIE

Pollack

Jordan

91-NE-043

SUDDARTH

Rhee

WenSoc

91-NM-152

GLASSMAN

Thompson

Donald

91-NC-105

BURGGRAF

Dickinson

Terry

91-XO-014

CAVENDER

Schoenbach

Karl

91-NP-061

LUPO

Dixon

G

91-NE-070

SCHOLER

Schroeder

John

91-NM-126

SJOGREN

Rhodes

Brahm

91-NM-143

SJOGREN

Crowell

Larry

91-NE-086

WITT

Sujawara

Francis

91-NP-056

SCHLOSSBER

Barlow

Jesse

91-NM-153

GLASSMAN

Carin

Altair

91-NE-097

WEINSTOCK

Cusumano

J

91-NA-092

WU

Grutnick

Michael

91-NA-107

WU

Nouri-Moghaddam

M

91-NM-155

JACOBS

Smith

Gerald

91-MP-064

KELLEY

Warner

Thomas

91-NC-111

STOBIE

Nestor

Ontario

91-NC-087

LEE

Fremgen

David

91-NC-059

LEE

Kim

Young

91-NE-056

POMRENKE

Lu

Laimel

91-NM-124

SJOGREN

Barrows

Mike

91-NP-052

SCHLOSSBER

Reincke

William

91-NA-053

FANT

Christensen

C. Paul

91-NP-051

SCHLOSSBER

Rabitz

Herschel

91-NC-064

BURGGRAF

Tsui

D.

91-NE-079

WITT

Kim

Dong-Eon

91-MP-069

SCHLOSSBER

Pyones

James

91-NM-120

SJOGREN

Byrnes

James

91-NM-117

SJOGREN

Enchev

Ognian

91-NM-143

SJOGREN

INSTITUTION	INVESTIGATOR	LAST NAME	FIRST NAME	MIDDLE	PROPOSAL	STATUS	PM NAME
Purdue Research Foundation		Rice	John		91-NM-189		GLASSMAN
Purdue University		Skelton	R		91-NA-103		WU
		Gajaj	Ghanderjit		91-NM-157	A	GLASSMAN
		Bourdeau	Philippe	L	91-NA-043		BOYCE
		Markowich	Peter	A	91-NM-113		NACHMAN
		Beverly III	A.	E	91-NP-074		SCHLOSSBER
		Krieger	Allen	S	91-NP-058		SCHLOSSBER
		Brush	Jeffrey	S	91-NA-083		FANT
		Dvorak	George	J	91-NA-102		BOYCE
		Loewy	Robert	G	91-NA-047		BOYCE
		McCron	Robert	K	91-NC-140		ERSTFELD
		Gibson	John		91-NL-054		HADDAD
		Rosiger, III	Henry	L	91-NL-033	A	HADDAD
		Swalley	A.	E	91-NC-135		BURGGRAF
		Sirovich	Lawrence		91-NM-163		NACHMAN
		Benard	David	J	91-NC-043	A	MODARCZYK
		Murohy	N.	C	91-NM-160		NACHMAN
		Papathomas	Thomas	V	91-NL-043		HADDAD
		Priyashyn	Lenon		91-NL-051	A	FREGLY
		Knight	Doyla		91-NA-066		SAKELL
		Satouden	Vanif		91-NM-142		SJOGREN
		Helm	Hanspeter		91-NP-063		KELLEY
		Martinez-Urieas	Eugenio		91-NL-074		HADDAD
		de la Beaulardiere	Odilo		91-NC-119		STOBIE
		Schneider	Jonn		91-NE-063		SCHIOLER
		Burns	Alan	C	91-NC-096		BURGGRAF
		Jones	Colin	R	91-NE-074		POMRENKE
		Moulton	Peter	E	91-NP-045		SCHLOSSBER
		Auerbach	Steven	F	91-NM-113		NACHMAN
		Krishnan	Mahadevan	P	91-NP-053	D	SCHLOSSBER
		Grubin	Harold	L	91-NP-051		WITT
		Mahmood	Shan		91-NM-144	A	SJOGREN
		Gordon	Daniel		91-NM-185	A	NACHMAN
		Rome	Dave		91-NE-113		WEINSTOCK
		Block	Edward		91-NM-199		NACHMAN
		Jaeger	Leev		91-NA-069		WU
		Lis	Steven		91-NA-073	A	WU
		Pervais	Mehtab	A	91-NE-103	A	CRAIG
		West	Cred		91-NA-079		FANT
		Hoyd	Stephen	C	91-NE-071		WITT
		Harris	Stephen		91-NM-175		JACOBS
		Lele	S.	E	91-NP-086		SCHLOSSBER
		Sigmon	Sanjiva	K	91-NA-119		SAKELL
		Simc	Thomas		91-NE-098		WITT
		Zara	Juan	C	91-NM-119	A	JACOBS
		Garvey	Richard	N	91-NC-069		BURGGRAF
		Craig	James	F	91-NC-141		BURGGRAF
			Gary	L	91-XO-013	A	BOLAND

State University of New York
Syracuse Univ - Dept Elec & Computer Eng

REPORT DATE 04/04/91

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INSTITUTION	INVESTIGATOR	PROPOSAL	STATUS	PM NAME
LAST NAME	FIRST NAME	MIDDLE		
Systems Research Co.	Wong	Po Kee		FANT
	Salour	Michael		FANT
	Salour	Michael	A	LEE
	Murdoch	Miles	A	CRAIG
TACAM Aerospace Corporation	Chattree	Moelii		CRAIG
	Zollinger	D S		SJOGREN
	Snatchanaryya	S. P.	A	BOYCE
	Nelson	Paul		JACOBS
TACAN Corporation	Watson	William		NACHMAN
	Allen	David		HEDBERG
	Whitcomb	John		BOYCE
	Kristiansen	Wayne	A	BOYCE
Technical Imaging Services, Inc.	Weinman	Leslie		LUPO
	Andrzej	Alejandro		CRAIG
	Cap	Y.		LEE
	Colaneri	Nicholas		LEE
Thin Film Concepts Inc	Klavetter	Floyd		POMRENKE
	Terlecki	Janusz		LEE
	Freiman	Charles		SCHIOLE
	Brannan	John		SCHLOSSER
UNIAK Corp.	Kersley	L.		SCHIOLE
	Elliot	Robert		STOBIE
	Desai	Chandra		JACOBS
	Unlamm	Donald		BOYCE
Univ College of Wales	Arcner	Myla		LEE
	Benford	Gregory		HOLLAND
	Sershad	Nail		BARKER
	Carter	Emily		JACOBS
Univ of Alberta	Chakrabarti	Supriya		BURGGRAPH
	Dunn	Bruce		BURGGRAPH
	Jeffries	Carson		STOBIE
	Matiu	Horiz		ERSTFELD
Univ of Arizona	Osher	S.		SUDDARTH
	Petroft	Pierre		BURGGRAPH
	Tobiska	W. Kant		NACHMAN
	Wang	Shyh		POMRENKE
Univ of California	Weber	K		STOBIE
	Yeh	Eicke		WITT
	Stegeman	Pochi		WITT
	Mark	George		WITT
United Engineering Trustees Inc	Russell	James		CRAIG
	Stegeman	George		CRAIG
	Mark	James		LEE
	Russell	James		HEDBERG
United Technologies Research Center	Chakrabarti	Supriya		KELLEY
	Dunn	Bruce		
	Jeffries	Carson		
	Matiu	Horiz		
Univ of Cincinnati	Osher	S.		
	Petroft	Pierre		
	Tobiska	W. Kant		
	Wang	Shyh		
Univ of Florida	Weber	K		
	Yeh	Eicke		
	Stegeman	Pochi		
	Mark	George		
United Technologies Research Center	Russell	James		
	Stegeman	George		
	Mark	James		
	Russell	James		

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LAST NAME	FIRST NAME	MIDDLE			
Univ of Colorado	Singh	Raj	N	91-NE-101	SCHOLER
	Sivadasen	Siva		91-NM-189	SJOGREN
	Smith	Bruce	D	91-NM-196	NACHMAN
	Aolowitz	Mark	J	91-NM-197	NACHMAN
	Sirungen	Sedat		91-NC-130	STOBIE
Univ of Connecticut Health Center	Blumen	William		91-NC-100	STOBIE
	Lineberger	W. Carl		91-NC-106	BURGGRAF
	Trahiotis	Constantine		91-NL-071	HADDAD
	Chariotoff	Richard	P	91-NE-117	SCHOLER
	Grill	Thomas	E	91-NA-105	BIRKAN
Univ of Delaware	Kleinman	Ralph	E	91-NM-154	JACOBS
	Santos	Fadil		91-NM-175	NACHMAN
	Carpenter	Steve	H	91-NE-094	SCHOLER
	Chambers	A.	C	91-NC-147	HEDBERG
	Bartlett	Rodney	J	91-NC-103	BURGGRAF
Univ of Denver	Green	David	M	91-NL-069	HADDAD
	Hoflund	Ger	R	91-NC-081	BURGGRAF
	Holloway	Paul	H	91-NE-083	WITT
	Thomson	Ewen	M	91-NC-120	STOBIE
	Gritten	Bruce	K	91-NL-056	FREGLY
Univ of Georgia	Galorath	R A McD		91-NA-116	FANT
	Pavi-Chandar	K		91-NA-114	BOYCE
	Brown	Sherman	D	91-NE-089	SCHOLER
	Cetinkunt	Sabri		91-NA-101	WU
	Gabriel	Michael		91-NL-041	HADDAD
Univ of Glasgow	Kennyon	Robert	V	91-NL-046	HADDAD
	Liu	Jane	W	91-NM-151	WAKSMAN
	Lojan	Gordon	D	91-NL-075	FREGLY
	Plewa	Michael	J	91-NL-032	CERVENY
	Wayman	C	M	91-NE-116	SCHOLER
Univ of Houston	Wickens	Christopher	D	91-NL-059	FREGLY
	Sai	Er-Wei		91-NM-189	JACOBS
	Lohman	David	F	91-NL-050	HADDAD
	Segal	Moti		91-NC-118	STOBIE
	Govindarajulu	Lakkuia		91-NM-159	SJOGREN
Univ of Illinois	Latham	John		91-NC-088	STOBIE
	Fisher	Michael	E	91-NM-198	NACHMAN
	Liu	C.	S	91-NP-092	BARKER
	Chang	Ching S		91-NA-110	BOYCE
	Soyd	John		91-NM-173	SJOGREN
Univ of Iowa	Pierre	Christophe		91-NA-113	WU
	Singh	Jasprit		91-NE-059	CRAIG
	Smith	Edward	E	91-NL-065	FREGLY
	Luskin	Mitchell		91-NM-141	NACHMAN
	Sydor	Michael		91-NE-087	POMRENKE
Univ of Kansas	Goldstein	R J		91-NP-043	SCHLOSSBER
	Helder	Andrew	J	91-NA-044	FANT
				91-NC-093	BURGGRAF
Univ of Kentucky					
Univ of Manchester Inst of Sci & Tech					
Univ of Maryland					
Univ of Massachusetts					
Univ of Michigan					
Univ of Minnesota					
Univ of Minnesota, ORTIA					
Univ of Missouri					

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LAST NAME	FIRST NAME	MIDDLE		
Univ of Nevada	Krishnapuram			BURGGRAF
	Winita			WAKSMAN
	Singh	R		STOBIE
Univ of New Hampshire	Wright	N	D	JACOBS
	Anderson	J		BURGGRAF
	Cheng	M	D	BARKER
Univ of New Mexico	Cheng		A	CRAIG
	Schreyer	L		WU
	Klibanov			NACHMAN
Univ of North Carolina	Erach	E		WILKES
	Keilman	E		BURGGRAF
	Mossbarg	M	D	SCHLOSSBER
Univ of Oklahoma	Barito		A	ERSTFELD
	Hashin		A	BOYCE
	Steele		A	SJOGREN
Univ of Oregon	Hartle	C		FREGLY
	Morison	H		HADDAD
	Blum	K		JACOBS
Univ of Pennsylvania	Chollaop			SJOGREN
	Culton	R	W	LEE
	Reinboers			SCHLOSSBER
Univ of Pittsburgh	Forest	R		CRAIG
	Goddard		A	BOYCE
	Hausen	E	A	JACOBS
Univ of Rochester	Weiburg			MCMICHAEL
	Udwadia	E		WU
	Weber	P		HEDBERG
Univ of Southern California	Wittis			BURGGRAF
	Knackmuss	J	A	CERVENY
	Alkarakos		A	NACHMAN
Univ of Tennessee	Armstrong	L	D	CERVENY
	Ansari	S		CERVENY
	MacLeod	M		FREGLY
Univ of Texas	Bascom	D		SCHIOLE
	Waltz	J	A	FREGLY
	Foster	S		BERRY
Univ of Texas Medical Branch	Proffitt	R		HADDAD
	MOOR	K	A	WU
	Gordon	P		CERVENY
Univ of Utah	Marnandez			STOBIE
	Palmer			FREGLY
	Mitchell	A	A	KELLEY
Univ of Virginia	Balantekin	B		KELLEY
	Cheng			BOYCE
	Crim			RURGGRAF
Univ of Washington	Jain			GLASSMAN
	Mangasarian	L		GLASSMAN
	Morris	G		GLASSMAN
Univ of Western Ontario				
Univ of Wisconsin				

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Univ of Wyoming	Scharen	Jonn			91-NP-044	A	BARKER
	Warren	Richard			91-NP-045		BARKER
	Wilmonowski	Bogden			91-NL-073		HADDAD
	University of Bath	Reith			91-NF-044		WITT
Utah State University	Mooley	Harvard			91-NA-043		FANT
	Adams	Kieran			91-NC-073	D	BURGGRAF
Vanderbilt University	Wickwar	Sene			91-NC-112		STOBIE
	Tolk	V.			91-NC-133		STOBIE
Venture Scientific, Inc.	Stiller	Norman			91-NC-070		BURGGRAF
Virginia Commonwealth University	Jena	Peter			91-NM-143		SJOGREN
Virginia Polytechnic Inst & State Univ	Cairns, Jr.	purusottan			91-NP-065		KELLEY
Wake Forest University	Roters	John			91-NL-035		CERVENY
	Walters	C			91-NA-112		WU
	Voci	P W			91-NA-113		SAKELL
	Washington State University	Bowles	Brent		91-NL-033		HADDAD
Washington University	Syynes	S. Richard			91-NP-067		BARKER
	Gritharn	Christopher			91-NM-135		JACOBS
Wetmore Institute of Science	Wainer	S			91-NA-067		WU
	Reiter	Stephen			91-NC-093		HEDBERG
	Cooper	Elmar			91-NC-123		STOBIE
	West Virginia University	Kuhlman	Bernard		91-NF-093		SCHOLER
World Laboratory Services	Huck	John			91-NA-083		MCMICHAEL
	Hony	Gregory			91-NA-083		FANT
Yale University	Moody	Lan			91-NM-143		SJOGREN
	Nurse	John			91-NF-100		SUDDARTH
Vitron Ltd	Fend	A. Stephen			91-NF-167		JACOBS
	Tarr	Mark			91-NF-081		WITT
	Sweeny	Michael			91-NL-042		HADDAD
			Mark		91-NF-072	A	WITT

PART II

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
DYNAMICS OF SOIL-REINFORCEMENT INTERACTIONS Purdue University	Bourgeois Phillips	N 24 03/01/91 \$174,923	BOYCE 91-NA-043	
EFFECTIVE COMPUTATIONAL STRATEGY FOR PREDICTING THE RESPONSE OF COMPLEX SYSTEMS Univ of Virginia	noor Ahmed	N 08 11/01/91 \$3,500	A WU 91-NA-045	\$3,500 10/01/91 \$3,500
(CSIR) MEASUREMENT OF HYPERSONIC SHOCK/BOUNDARY LAYER INTERACTIONS Comptech Inc	Dean F K	N 05 23/01/91 \$46,720	FANT 91-NA-055	
(CSIR) CRITICAL EVALUATION OF SOME TWO-POINT CLOSURES Robert Inc.	Sanderson Robert	N 06 23/01/91 \$43,931	FANT 91-NA-061	
DETECTION OF FLAWS IN CONCRETE AND CORROSION OF REINFORCEMENT IN STRUCTURES BY HIGH-FREQUENCY ULTRASOUND Jrexel University	Papovics Sandor	N 24 05/02/91 \$290,480	WU 91-NA-068	
INTERRELATION AMONG DYNAMICALLY INDUCED DAMAGE ZONES IN ROCK AND CONCRETE FRACTURE Soreq	Jaeger Zeev	N 36 05/02/91 \$3,000,000	WU 91-NA-069	\$30,000 01/07/91 \$90,000
DAMAGE IN COMPOSITES AND OTHER ADVANCED MATERIALS TREATED BY PERCOLATION THEORY Soreq	Jaeger Zeev	N 36 07/02/91 \$90,000	A WU 91-NA-073	
(CSIR) SHARP SHOCK CAPTURING IN HIGHER DIMENSIONS Chi-Wang Shu	Shu Chi-Wang	N 06 19/02/91 \$50,000	FANT 91-NA-086	
(CSIR) ACCURATE FINITE DIFFERENCE SCHEMES WITH FINITE MESH-SIZE CFD Laboratory	Chen Philip	N 06 19/02/91 \$49,876	FANT 91-NA-087	

TITLE TITLE (CONT.) INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIAL START DATE TOT AMT
(SBR) CONSISTENCY REQUIREMENTS OF FINITE DIFFERENCE EQUATIONS CFD Laboratory	Chen Phillip	N 06 19/02/91 \$49,376	FANT 91-NA-088	
(SBR) COMPUTATIONAL SIMULATION OF CONFORMAL STORE CARRIAGE AND RELEASE Chimera Research	Dougherty F Carroll	N 06 13/02/91 \$50,000	FANT 91-NA-090	
TESTING AND MODELING FOR DELAMINATION AND REDONDING OF CONTACTS Univ of Arizona	Desai Chandra	N 24 25/02/91 \$218,057	BOYCE 91-NA-097	
STUDY OF NEURO-CONTROLLERS FOR MOTION CONTROL SYSTEMS WITH DISTRIBUTED MECHANICAL FLEXIBILITY Univ of Illinois	Catinkunt Sabri	N 36 04/03/91 \$141,559	A WU 91-NA-101	
KINETICS AND MECHANISMS OF FAST THERMOLYSIS THAT SIMULATE BURNING CONDITIONS Univ of Delaware	Brill Thomas	P 24 07/03/91 \$199,188	BIRKAN 91-NA-105	
A CELL-STRESS APPROACH FOR MICROMECHANICAL ANALYSIS OF REINFORCED GLIDS Univ of Wisconsin	Chen Shun	N 24 13/03/91 \$125,510	BOYCE 91-NA-111	
NORMAL MODES FOR NONLINEAR DYNAMICAL SYSTEMS Univ of Michigan	Pierre Christophe	N 36 25/03/91 \$440,095	WU 91-NA-113	
AN EXPERIMENTAL INVESTIGATION INTO INTERFACE FRACTURE Univ of Houston	Ravi-Chander K	N 24 25/03/91 \$169,838	BOYCE 91-NA-114	
THE EFFECT OF PITCH RATE UPON THE SEPARATED FLOW OVER A SLENDER FOREBODY Univ of Glasgow	Geldraith R A McD	N 24 25/03/91 \$215,858	FANT 91-NA-116	

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DEVELOPMENT OF A DAMAGE DEPENDENT THERMOVISCOPLASTIC CONSTITUTIVE MODEL FOR METAL MATRIX COMPOSITES Texas Engineering Experiment Center	Allen David	N 36 04/03/91 \$538,360	BOYCE 91-NA-100	
DEVELOPMENT OF A MICROPOLAR DAMAGE DEPENDENT THERMOVISCOPLASTIC LAMINATION MODEL FOR METAL MATRIX COMPOSITES Texas Engineering Experiment Center	Allen David	N 36 07/03/91 \$406,399	BOYCE 91-NA-104	
MESOMECHANICS MODEL FOR TIME DEPENDENT DAMAGE GROWTH IN CERAMIC MATRIX COMPOSITES AT ELEVATED TEMPERATURES Texas Engineering Experiment Center	Whitcomb John	N 36 07/03/91 \$486,252	BOYCE 91-NA-106	
(SGIR) AN INNOVATIVE APPROACH TO UNDERSTANDING TRANSITION Physical Sciences Inc	Koznick William	N 06 23/01/91 \$49,997	FANT 91-NA-059	
AFWL CRAY 2 SUPPORT FOR SONI AND AGARWAL Air Force Weapons Lab	Mages Mary Ann	N 10 09/01/91 \$76,000	A SAKELL 91-NA-042	\$76,000 01/02/91 \$76,000
COMPUTER SUPPORT ON AFWL CRAY - Air Force Weapons Lab	Mages Mary Ann	N 08 08/02/91 \$10,000	A MCMICHAEL 91-NA-074	\$10,000 01/02/91 \$10,000
(SEIK) A COST EFFECTIVE, SIMPLE FINITE ELEMENT BASED ALGORITHM FOR UNSTEADY FLUID DYNAMICS Advanced Projects Research Inc	Pedder Darrell	N 06 23/01/91 \$58,364	FANT 91-NA-063	
CREEP RUPTURE LIFETIME ASSESSMENT ON SECOND PHASE REINFORCED CERAMIC COMPOSITES National Inst. of Standards & Technology	Gruenig Tze-Jer	N 36 12/02/91 \$450,000	BOYCE 91-NA-075	
(SGIR) TEMPORALLY ADAPTIVE GRID SIMULATOR (TAGS) Spectral Sciences, Inc.	Pervais Mehtab	N 06 19/02/91 \$49,952	FANT 91-NA-079	

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(S21R) THE NUMERICAL SIMULATION OF THERMALLY RADIATING, HYPERSONIC FLOWS NEAR THE CONTINUUM LIMIT Luco Technologies, Ltd.	Baker John	N 06 19/02/91 \$49,982	FANT 91-NA-089	
FLUID MECHANICS AND HEAT TRANSFER RESEARCH RELATED TO HIGH TEMPERATURE GAS TURBINES Univ of Minnesota, ORITA	Goldstein R J	N 36 10/01/91 \$325,000	A FANT 91-NA-044	\$100,000 01/06/91 \$325,000
(S21D) PRESSURE-BASED HIGH ORDER TWO METHODOLOGY FOR DYNAMIC STALL CONTROL ED Research Corp.	Yang H Q	N 06 19/02/91 \$50,000	A FANT 91-NA-078	\$50,000 01/06/91 \$50,000
NONLINEAR THREE-DIMENSIONAL DYNAMICS OF VORTEX SHEETS UNDER STRAIN - TOPOLOGICAL & DYNAMICAL SIMILARITY BETWEEN LARGE & SMALL SCALES Univ of Southern California	Moilbur Eckert	N 30 05/02/91 \$197,647	MCMICHAEL 91-NA-070	
MECHANICS, TRANSPORT PROPERTIES AND STATISTICAL PHYSICS OF FRANULAR MEDIA AND GEOMETRICS Univ of Southern California	Goddard J D	N 36 15/02/91 \$265,789	A BOYCE 91-NA-077	\$85,668 01/07/91 \$265,789
GLOBAL BEHAVIOR OF MECHANICAL SYSTEMS IN NOISY ENVIRONMENTS Univ of Southern California	Udwadia Firdaus	N 36 07/03/91 \$276,020	WU 91-NA-107	
(S21R) PDE SOLVERS FOR VISCO-ELASTO-DYNAMICS (VED) AND MAGNETO- VISCOELASTO-DYNAMICS (MVD) & THEIR APPLICATIONS IN SPACE MATERIALS Systems Research Co.	None Po Kee	N 06 19/02/91 \$49,885	FANT 91-NA-081	
(S21R) LIQUID ENGINE INTERNAL FLOW DYNAMICS Systems Research Co.	None Po Kee	N 06 19/02/91 \$49,885	FANT 91-NA-082	
(S21R) FLUID MECHANICS: SHOCK WAVE PROPAGATION IN INHOMOGENEOUS MEDIA Mission Research Corp	Bottone Steven	N 06 23/01/91 \$59,873	FANT 91-NA-056	

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(CSIR) AN INNOVATIVE METHOD OF EFFICIENT SOLUTION OF EQUATIONS OF FLUID DYNAMICS General Analytic Corporation	Adorian G	N 05 23/01/91 \$50,000	FANT 91-NA-056	
INVESTIGATION OF THE LAMINAR FLAMELET MODEL OF TURBULENT DIFFUSION FLAMES National Science Foundation	Grosshandler William	N 23 12/02/91 \$129,372	TISHKOFF 91-NA-076	\$43,324 01/03/91 \$129,972
(CSIR) DEVELOPMENT & VALIDATION OF A SINGLE SENSOR CONSTANT TEMPERATURE HOT-WIRE ANEMOMETER FOR DYNAMIC MEASUREMENT OF VELOCITY World Laboratory Services	Buck Gregory	N 06 19/02/91 \$43,996	FANT 91-NA-085	
THE ACCURATE COMPUTATION OF UNSTEADY INLET AND JET FLOWS WITH A DYNAMIC FLOW ADAPTIVE MESH North Carolina State University	Morse J Scott	N 36 25/02/91 \$320,285	SAKELL 91-NA-096	
VALIDATED AERO-OPTIC FACILITY PROGRAM Calspan-U3 Research Center	Holden Mike	N 12 07/03/91 \$8,716,503	A SAKELL 91-NA-108	\$100,000 01/05/91 \$4,100,000
EXPERIMENTAL STUDIES OF THE MEAN AND FLUCTUATING CHARACTERISTICS OF HYPERSONIC TURBULENT BOUNDARY LAYERS Calspan-U2 Research Center	Holden Michael	N 24 26/03/91 \$259,999	A SAKELL 91-NA-117	\$130,000 01/07/91 \$259,999
ENVIRONMENTAL EFFECTS ON MECHANICAL COMPOSITE JOINTS Konselsaer Polytechnic Institute	Looney Robert	N 30 17/01/91 \$179,514	BOYCE 91-NA-047	
PERFORMANCE AND DAMAGE MECHANISMS IN HIGH TEMPERATURE COMPOSITES WITH DUCTILE MATRICES Konselsaer Polytechnic Institute	Overak George	R 36 04/03/91 \$80,000	BOYCE 91-NA-102	
DEVELOPMENT OF A TWO-EQUATION TURBULENCE MODEL FOR HYPERSONIC FLOWS Putgers, The State Univ, Coll of Enginr	Knight Doyle	N 36 30/01/91 \$232,675	SAKELL 91-NA-066	

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DIMENSIONALITY AND SPATIAL CORRELANCE IN THE DYNAMICS OF FLEXIBLE IMPACT OSCILLATORS Pennsylvania State University	Cusumano J	N 36 20/02/91 \$188,070	WU 91-NA-092	
SELF-GENERATING ZEOLITE-CEMENT COMPOSITES Pennsylvania State University	Brutzeck Michael	N 26 11/03/91 \$391,442	WU 91-NA-109	
FRACTURE MECHANICS AND DAMAGE THEORY FOR CONCRETE PAVEMENT UNDER REPETITIVE LOADING Texas A and M Research Foundation	Hollinger D G	N 35 30/01/91 \$320,458	BOYCE 91-NA-065	
STRESS-STRAIN MODELLING FOR HETEROGENEOUS GRANULAR MATERIALS BASED ON MICRO-MECHANICS Univ of Massachusetts	Chang Ching J	N 24 11/03/91 \$177,558	BOYCE 91-NA-110	
(CSLR) INNOVATIVE EXPLICIT/IMPLICIT ALGORITHMS FOR SIMULATING COMPLEX TUBOMACHINERY PROBLEMS USING ADAPTIVE UNSTRUCTURED GRIDS Computational Mechanics Company Inc	Stowers Steven	N 06 22/01/91 \$48,317	FANT 91-NA-050	
(CSAP) SMART ALGORITHMS FOR VISUALIZATION AND SIMULATION OF COMPLEX FLOWS Computational Mechanics Company Inc	Stowers Steven	N 06 23/01/91 \$49,951	FANT 91-NA-062	
(CSIR) MINIMALLY DISSIPATIVE KINEMATIC KINETIC FLUX VECTOR SPLITTING IMPLICIT PARALLEL NAVIER-STOKES CFD ALGORITHM Computational Mechanics Corporation	Iannelli Giuseppe	N 06 23/01/91 \$50,000	FANT 91-NA-057	
(CSIR) VELOCITY RATIO DEPENDENCE OF ASYMMETRIC EFFECTS IN A SPATIALLY GROWING PLANE REACTING MIXING LAYER Flow Modeling & Simulation	Kaul Upender	N 05 19/02/91 \$49,750	FANT 91-NA-084	
(SSIR) AN INNOVATIVE APPROACH TO AERODYNAMIC PREDICTION USING FLOW VISUALIZATION RESULTS IN CONJUNCTION WITH COMPUTATIONAL METHODS Eidetics International Inc.	Terru Ng	N 06 22/01/91 \$69,966	FANT 91-NA-049	

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(SBIR) WING ROCK SUPPRESSION USING FOREBODY VORTEX CONTROL Fidetics International Inc.	N3 T Terry	N 06 22/01/91 \$69,185	FANT 91-NA-051	
(SBIR) A STUDY OF COMPRESSIBLE TURBULENCE Nielsen Engineering and Research Co	Nixon David	N 06 22/01/91 \$49,892	A SAKELL 91-NA-054	\$49,892 01/06/91 \$49,892
(SBIR) A NEW APPROACH TO TURBULENCE MODELING Nielsen Engineering and Research Co	Childs Robert	N 06 23/01/91 \$55,000	FANT 91-NA-060	
COMPOSITE MATERIALS INTERFACE MECHANICS Univ of Pennsylvania	Hashin Zvi	N 07 01/03/91 \$27,500	A BOYCE 91-NA-099	\$27,500 01/03/91 \$27,500
INVESTIGATION OF COUPLED ANALYSIS TECHNIQUES FOR ADAPTIVE MATERIAL STRUCTURAL SYSTEMS Virginia Polytechnic Inst & State Univ	Rogers C	N 36 19/03/91 \$467,094	WU 91-NA-112	
HYPERSONIC FLOW RESEARCH ON UNSTRUCTURED GRIDS Virginia Polytechnic Inst & State Univ	Walters R W	N 36 26/03/91 \$440,290	SAKELL 91-NA-118	
INTERACTION EFFECTS OF CRACKS, FLAWS AND DAMAGE REVERSAL IN QUASI-BRITTLE MATERIALS Univ of New Mexico	Schreyer H	N 24 26/02/91 \$293,750	WU 91-NA-098	
CORE SUPPORT FOR THE GEOTECHNICAL BOARD National Academy of Sciences	Smellie Peter	R 21 05/02/91 \$40,000	A BOYCE 91-NA-072	\$20,000 01/06/91 \$40,000
(SBIR) NUMERICAL SOLUTION OF UNSTEADY SWIRL FLOW IN A HILSCH TUBE Universal Technology Corp.	Bethel Howard	N 06 22/01/91 \$49,999	FANT 91-NA-048	

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(SBR) COMPUTATIONAL FLUID DYNAMICS Rekenhater Technology Associates Corp	Brush Jeffrey	N 06 19/02/91 \$49,999	FANT 91-NA-083	
NEW SPACE STRUCTURE AND CONTROL DESIGN CONCEPTS Purdue Research Foundation	Skelton R	N 36 07/03/91 \$359,642	WU 91-NA-103	
SOLUTION OF INCOMPRESSIBLE FLOWS USING UNSTRUCTURED SOLUTION- ADAPTIVE MESHES Greare Inc. Research & Development Inc	Murthy Jayathi	N 06 24/01/91 \$49,462	FANT 91-NA-064	
(SBR) IMPLICIT ALGORITHMS FOR MULTICOMPONENT AND CHEMICALLY REACTING FLOWS IN COMPLEX GEOMETRIES Aerodynamics Research Association Inc	Roache Patrick	N 06 22/01/91 \$50,000	FANT 91-NA-053	
NASA-AMES COLLABORATIVE COMPUTER SUPPORT NASA - Ames Research Center	Rogallo Robert	N 06 22/02/91 \$20,000	A MCMICHAEL 91-NA-094	\$20,000 14/03/91 \$20,000
NASA-AMES COLLABORATIVE COMPUTER SUPPORT NASA - Ames Research Center	Rogallo Robert	N 06 22/02/91 \$20,000	A MCMICHAEL 91-NA-095	\$20,000 14/03/91 \$20,000
(SBR) COMPUTATIONAL STUDY OF OSCILLATING WING FOR IMPROVED MANEUVERABILITY Continuum Dynamics, Inc.	Quackenbush Todd	N 06 22/01/91 \$49,984	FANT 91-NA-052	
(SBR) NONOSCILLATORY AND NONDIFFUSE SOLUTION OF COMPRESSIBLE FLOW WITH SHOCKS BY LI FINITE ELEMENT METHOD Computational Physics System	Jianj So-nam	N 06 19/02/91 \$50,000	FANT 91-NA-091	
IMPERFECTION-SENSITIVITY OF STIFFENED COMPOSITE SHELLS UNDER INTERACTIVE BUCKLING Washington University	Sridhar S	N 24 04/02/91 \$131,083	WU 91-NA-067	

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MICROCRACKING AND FRACTURE OF CEMENTITIOUS COMPOSITES IN COMPRESSION Massachusetts Institute of Technology	Oral	N 24 25/03/91 \$233,686	WU 91-NA-115	
PHYSICAL AND MODELLING ASPECTS OF COMPRESSIBLE TURBULENT SHEAR FLOWS Stanford University	Leib	N 36 26/03/91 \$370,751	SAKELL 91-NA-119	
EFFECT OF COMPRESSIBILITY ON LARGE-SCALE STRUCTURE IN THE CIRCULAR JET West Virginia University	Kuhlman	N 28 05/02/91 \$263,193	MCMICHAEL 91-NA-071	
STABILITY AND TRANSITION OF HYPERSONIC BOUNDARY-LAYER FLOWS Arizona State University	Reef	N 36 22/02/91 \$299,860	SAKELL 91-NA-093	
(SCIR) HIGH PERFORMANCE THRUST VECTOR CONTROL SYSTEM Applied Technology Associates, Inc.	Cavallieri	N 06 19/02/91 \$49,923	FANT 91-NA-080	

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PHASE STABILIZATION AND IONIC CONDUCTIVITY IN SUBSTITUTED SUFATE COMPOUNDS Univ of Oklahoma	Frech	N 12 10/01/91 \$99,575	WILKES 91-NC-044	
DYNAMICS AND SPECTRA OF HIGHLY EXCITED MOLECULES Univ of Oregon	Kellman	N 12 11/01/91 \$26,492	BURGGRAB 91-NC-045	
CERAMICS DERIVED FROM METAL-ORGANIC PRECURSORS Univ of Arizona	Uhlmann	N 12 15/01/91 \$179,993	A LEE 91-NC-051	\$80,000 01/05/91 \$515,000
BROAD RANGE LASER-PROTECTION FROM PHOTOLOGY-DETERIVED, ULO-ACTIVE THERMOTROPIC POLYESTER FILMS Coster-Miller Inc	Kovar	N 06 16/01/91 \$59,135	LEE 91-NC-052	
HIGH XC(3) POLYIMIDES - NEW NONLINEAR OPTICAL MATERIALS Coster-Miller Inc	Oruy	N 06 16/01/91 \$59,974	LEE 91-NC-057	
ULTRAVIOLET CURING OF SOL-GEL DERIVED CERAMICS Coster-Miller Inc	Hadjimant	N 06 16/01/91 \$59,926	LEE 91-NC-053	
NEW ELECTRO-OPTICAL AND NONLINEAR OPTICAL MATERIALS USING SILICATE AND ALUMINOSILICATE GLASSES DOPED WITH XC(2) ORGANIC MOLECULES Belltran Inc	Simo	N 06 16/01/91 \$50,000	LEE 91-NC-060	
ULTRASONICALLY-RESOLVED CHEMICAL INVESTIGATIONS CONDUCTED DURING THE REACTION AND GROWTH OF EXPOSED AND CURIED - INTERFACES Tetrahedra Tetrahedra University	Bruce	N 12 23/01/91 \$215,081	BURGGRAB 91-NC-066	
ENERGY TRANSFER DYNAMICS IN ISOLATED AND IN COLLIDING HIGHLY VIBRATIONALLY EXCITED MOLECULES Univ of Wisconsin	F. Fleming	N 12 25/01/91 \$202,574	BURGGRAB 91-NC-067	

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CONDUCTING POLYMER COMPOSITES FOR USE AS INCREASED POLARIZERS	Colaneri	N 06 31/01/91 \$52,781	LEE 91-NC-071	
INIAK Corp.	Nicholas			
CONDUCTING POLYMER/ELASTOMER COMPOSITES FOR USE AS STRAIN GAUGES	Andreette	N 06 31/01/91 \$53,079	LEE 91-NC-072	
INIAK Corp.	Alejandro			
BROAD BAND RADAR ABSORBING PAINTS AND COATINGS FABRICATED FROM CONDUCTING POLYMER FIBRILS	Cio	N 06 31/01/91 \$50,041	LEE 91-NC-073	
INIAK Corp.	Y.			
SOLUBLE PRECURSOR ROUTE TO POLYANILINES	Klavetter	N 06 31/01/91 \$51,292	LEE 91-NC-074	
INIAK Corp.	Floyd			
SYNTHESIS OF FERROELECTRIC LIQUID CRYSTAL POLYMERS FOR NON-LINEAR OPTICS	Thorne	N 06 31/01/91 \$53,903	LEE 91-NC-075	
Display Tech, Inc	Willie			
DIAMOND CERAMIC MATERIALS WITH UNIQUE STRUCTURAL PROPERTIES	Pinneo	N 06 31/01/91 \$65,545	LEE 91-NC-076	
Crystalline	J. Michael			
METALLIC IONS AND ATOMS IN THE UPPER ATMOSPHERE	Forbes	N 12 31/01/91 \$30,321	STOBIE 91-NC-080	
Boston University	Jeffrey			
DEVELOPMENT OF AN O-ATOM SUN	Hoflund	N 12 04/02/91 \$20,000	BURGGRAB 91-NC-081	
Univ of Florida	Gar			
INNOVATIVE PROCESSING OF QUANTUM DOT STRUCTURES	Raman	N 06 05/02/91 \$51,562	LEE 91-NC-083	
Ceracon Inc.	Ramas			

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LASER AND PHOTON BEAM PROCESSING OF MULTIFUNCTIONAL "DIAMOND POLYMER FILMS" Poltech Corp	Dorfman V. S.	N 05 05/02/91 \$49,915	LEE 91-NC-085	
AMIC - A NEW CORRELATED SEMIEMPIRICAL METHOD Univ of Missouri	Holder Andrew	N 12 13/02/91 \$132,052	BURGGRAPH 91-NC-093	
DEVELOPMENT OF AMI SEMIEMPIRICAL PARAMETERS FOR LEAD AND ARSENIC Univ of Missouri	Holder Andrew	N 12 13/02/91 \$32,856	BURGGRAPH 91-NC-094	
U.S. NATIONAL WEATHER EXPERIMENT STORMWEST 1992: WAVE AND TURBULENCE IN FRONTAL ZONES Univ of Colorado	Plumer William	N 12 19/02/91 \$72,760	STOBIE 91-NC-100	
GRAY 2 CALCULATIONS ON NITROGEN CLUSTERS Univ of Florida	Bartlett Rodney	N 12 21/02/91 \$12,000	A BURGGRAPH 91-NC-103	\$12,000 01/04/91 \$12,000
GRAY 2 CALCULATIONS OF POTENTIAL ENERGY SURFACES FOR DICATIONS Univ of Colorado	Lindenberg W. Carl	N 12 21/02/91 \$2,000	A BURGGRAPH 91-NC-106	\$2,000 01/04/91 \$2,000
EFFECTS OF DYNAMIC FORCING ON HIGH-RESOLUTION FREQUENCY OF OCCURRENCE OF CLOUD AS MEASURED FROM SATELLITES METSAT INC	Vander Haar Thomas	N 12 22/02/91 \$36,115	STOBIE 91-NC-110	
LABORATORY STUDIES OF ICE INITIATION IN CLOUD USING THE UMR SIMULATION FACILITY Univ of Missouri	White Daniel	N 12 27/02/91 \$96,440	STOBIE 91-NC-116	
EVALUATION OF THE EFFECT OF SURFACE CHARACTERISTICS OVER UNIFORM TERRAIN ON THE DEVELOPMENT OF DEEP CONVECTIVE CLOUDS Univ of Kansas	Segal Moti	N 12 28/02/91 \$46,167	STOBIE 91-NC-118	

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WITHRAS STUDIES OF THE BOUNDARY BETWEEN OPEN AND CLOSED FIELD LINES SRI International	de la Beaujardiere Odile	N 12 23/02/91 \$101,974	STOBIE 91-MC-119	
TRACKING RAPID LIGHTNING PROCESSES WITH NANOSECOND TIME RESOLUTION	Thomson	N 12 28/02/91 \$53,649	STOBIE 91-MC-120	
UNiv of Florida				
DIRECT AND LARGE SIMULATION OF GEOPHYSICAL FLOWS	Siringen	N 12 05/03/91 \$64,542	STOBIE 91-MC-130	
UNiv of Colorado	Sedat			
ABSOLUTE, EXTREME-ULTRAVIOLET SOLAR SPECTRAL IRRADIANCE MONITOR (CAESSIM) Harvard College	Perkinson	N 12 05/03/91 \$85,744	STOBIE 91-MC-131	
STUDIES OF C60, C70, AND OTHER FULLERENES: SYNTHESIS, DERIVATIZATION, ELECTROCHEMISTRY, LUBRICANT PROPERTIES AND NEW ... Rice University	Smalley	N 12 07/03/91 \$505,000	BURGGRAF 91-MC-135	
FUNDAMENTAL STUDIES OF THE INFLUENCE OF BORON ON THE GRAPHITE-OXYGEN REACTION Auburn University	Baker	N 12 13/03/91 \$145,384	BURGGRAF 91-MC-137	
AN ALTERNATIVE APPROACH TO A RANGE OF NEW POTENTIAL FLUORINATED LUBRICANTS Univ of Durham	Chambers	N 12 26/03/91 \$14,400	HEDBERG 91-MC-147	
TIME VARIATIONS OF ENERGETIC ELECTRON PRECIPITATION PATTERNS AND THEIR EFFECTS ON THE ATMOSPHERE Lockheed Missiles & Space Co Inc	Imhof	N 12 27/02/91 \$92,032	STOBIE 91-MC-115	
SILICON POLYMER MATERIALS Univ of Southern California	Weber	N 12 15/01/91 \$199,087	HEDBERG 91-MC-052	

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GAS-SURFACE INTERACTIONS NEAR DISSOCIATION THRESHOLD Univ of Southern California	Wittig Dalton	N 12 28/01/91 \$187,717	BURGGRAPH 91-NC-069	
ELECTRO-OPTIC BEAM STEERING USING NON-LINEAR ORGANIC MATERIALS (USC) Univ of Southern California	Larry	N 12 14/03/91 \$70,000	LEE 91-NC-138	
DIAMOND FIBERS FOR THERMAL ENERGY MANAGEMENT Applied Science, Inc.	Lak?	N 06 16/01/91 \$50,059	LEE 91-NC-054	
DEVELOPMENT OF NOVEL CARBIDE FIBERS FOR CERAMIC COMPOSITES Applied Science, Inc.	Ying	N 06 16/01/91 \$64,493	LEE 91-NC-055	
IMPROVED FIBER COMPRESSION STRENGTH THROUGH BIOMIMICKING Applied Science, Inc.	Lake	N 06 16/01/91 \$49,297	LEE 91-NC-056	
THERMALLY CONTROLLED MECHANICAL AND ELECTRONIC PROPERTIES OF A CERMET THIN FILM COATING Midwest Research Technologies, Inc.	Drueger	N 06 12/02/91 \$49,997	LEE 91-NC-091	
STRUCTURE AND DYNAMICS OF SILICON NITRIDATION CHEMISTRY FROM THEORY Univ of California	Carter	N 12 18/01/91 \$99,715	BURGGRAPH 91-NC-063	
CRAY 2 CALCULATIONS TO DEVELOP THEORETICAL MODELS OF ELECTRON SCATTERING FROM SURFACES Univ of California	Metiu	N 12 20/02/91 \$3,000	A BURGRAPH 91-NC-102	\$3.1 01/04/ \$3.1
CRAY 2 CALCULATIONS ON REACTIONS OF SILICON SURFACES Univ of California	Carter	N 12 22/02/91 \$2,000	A BURGRAPH 91-NC-109	\$2.1 01/04/ \$2.1

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DEVELOPMENT OF A REFERENCE SOLAR EUV MODEL Univ of California	Tobiska	N 12 28/02/91 \$76,600	STOBIE 91-MC-122	
ANALYSIS OF SAN MARCO AIRGLOW DATA Univ of California	Chakrabarti	N 12 01/03/91 \$83,900	STOBIE 91-MC-128	
WORKSHOP ON THE CHEMISTRY OF OPTICAL MATERIALS Univ of California	Dunn	N 12 28/03/91 \$10,000	ERSTFELD 91-MC-150	
A NEW APPROACH TO STUDY THE TURBULENT PLANETARY BOUNDARY LAYER NASA - Goddard Space Flight Center	Canuto	N 12 20/02/91 \$158,000	STOBIE 91-MC-101	
GRAVITY WAVES AND CONVECTION IN THE ATMOSPHERE NASA - Goddard Space Flight Center	Einaudi	N 12 01/03/91 \$117,860	STOBIE 91-MC-127	
IONOSPHERIC STRUCTURE OVER NORTHERN EUROPE Univ College of Wales	Kersley	N 12 19/03/91 \$52,797	STOBIE 91-MC-142	
FUNDAMENTALS OF FRICTION Naval Research Laboratory	Singer	N 12 15/02/91 \$5,000	BURGRAF 91-MC-098	
DYNAMICS OF DUSTY PLASMAS IN THE IONOSPHERE Naval Research Laboratory	Ganquill	N 12 27/02/91 \$150,000	STOBIE 91-MC-114	
HIGH CONTRAST ORGANIC CRYSTAL OPTICAL MODULATOR FOR PHASED ARRAY ANTENNA AND OPTICAL SIGNAL PROCESSING SYSTEMS Jet Propulsion Laboratory	Harder	N 12 26/03/91 \$65,400	LEE 91-MC-145	

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APPROACHES FOR OPTIMIZING THE FIRST ELECTRONIC HYPERPOLARIZABILITIES OF CONJUGATED ORGANIC MOLECULES Jef Freudenstein Laboratory	Harder	N 12 26/03/91 \$238,000	LEE 91-MC-146	
NMR STUDY OF BORO-SILICATE AND ALUMINO-SILICATE SOL-GEL PREPARED GLASSES Rensselaer Polytechnic Institute	MacCrone	N 12 18/03/91 \$169,326	ERSTFELD 91-MC-140	
CRYSTAL CALCULATIONS ON POTENTIAL ENERGY SURFACES OF HEDM MOLECULES North Dakota State University	Fischer	N 12 22/02/91 \$1,000	A BURGGRAF 91-MC-108	\$1,000 01/04/91 \$1,000
DEVELOPMENT AND TESTING OF IMPROVED TECHNIQUES FOR MODELING THE HYDROLOGIC CYCLE IN A MESOSCALE WEATHER PREDICTION SYSTEM Pennsylvania State University	Thomas	N 12 27/02/91 \$287,870	STOBIE 91-MC-111	
SOME AND THE SCHNODDERM CRYSTAL COMPOSITE: SOURCES FOR NEW IDEAS IN MATERIALS SCIENCE Weizmann Institute of Science	Wainer	N 12 08/02/91 \$78,280	HEDBERG 91-MC-090	
SOL-GEL PROCESSED MULTIFUNCTIONAL ORGANIC POLYMER-INORGANIC OXIDE COMPOSITES FOR ELECTRONICS AND PHOTONICS Laser Photonics Technology Inc	Bursynski	N 06 31/01/91 \$49,990	A LEE 91-MC-077	\$49,990 01/06/91 \$49,990
ORGANIC KERR-LIQUID-FILLED HOLLOW FIBER AS A NOVEL MULTIMWAVELENGTH LASER SOURCE FOR LIDAR SENSOR SYSTEM Laser Photonics Technology Inc	Mo	N 06 18/03/91 \$49,980	A LEE 91-MC-139	\$49,980 01/06/91 \$49,980
PORPHYRINIC MATERIALS FOR THIRD ORDER NONLINEAR OPTICAL PURPOSES George Mason University	Honeychuck	N 12 22/03/91 \$80,981	HEDBERG 91-MC-143	
FIFTH INTERNATIONAL WORKSHOP ON DESORPTION INDUCED BY ELECTRONIC TRANSITIONS (DIET V) Sandia Laboratories	Burns	N 12 13/02/91 \$10,000	BURGGRAF 91-MC-096	

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EVALUATION OF DOPPLER RADAR WINDS IN TROPICAL CYCLONE SPECIFICATION DURING THE 1990 OFFICE OF NAVAL RESEARCH (ONR) ... Office of Naval Research	Abbay	N 02 27/03/91 \$50,000	A STOBIE 91-NC-148	\$50,000 01/08/90 \$50,000
SYNTHESIS OF NOVEL FUNCTIONALISED POLY-ORGANOSILANES FOR ELECTRONIC APPLICATIONS University of Bath	Molloy	N 12 31/01/91 \$49,755	D BURGGRAF 91-NC-079	
GRAVITY WAVES IN THE ATMOSPHERE: INSTABILITY, SATURATION, AND TRANSPORT Northwest Research Associates, Inc.	Dunkerton	N 12 01/03/91 \$79,992	STOBIE 91-NC-124	
LABORATORY STUDIES OF GRAVITY WAVE/MEAN FLOW INTERACTIONS Northwest Research Associates, Inc.	elisi	N 12 01/03/91 \$93,487	STOBIE 91-NC-125	
STUDY OF PSCL3 - ALKALI ATOM REACTIONS Univ of New Hampshire	Wright	N 12 11/01/91 \$38,000	BURGGRAF 91-NC-047	
NOVEL POLYMERIC COMPOSITES THROUGH MOLECULAR ENGINEERING Univ of Cincinnati	Mark	N 12 11/01/91 \$173,465	MEDEBERG 91-NC-048	
THEORIES AND PREDICTIONS FOR PHYSICAL PROPERTIES OF ORGANIC NONLINEAR OPTICAL MATERIALS IN CONDENSED PHASES Los Alamos Scientific Lab (Calif Univ)	Dowell	N 12 04/02/91 \$107,100	D BURGGRAF 91-NC-082	
HALOGEN AZIDE VISIBLE CHEMICAL LASERS Rockwell International, Science Center	Benard	R 12 03/01/91 \$199,996	A MODARCZYK 91-NC-043	\$199,996 15/04/91 \$199,996
OPTIMAL CONTROL OF MOLECULAR MOTION Princeton University	Rabitz	N 12 18/01/91 \$169,202	BURGGRAF 91-NC-064	

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CRAY 2 CALCULATIONS OF DYNAMICS PROCESSES OF HEDM MATERIALS Oklahoma State University	Thompson Donald	N 12 21/02/91 \$3,000	A BURGGRAF 91-NC-105	\$3,000 01/04/91 \$3,000
REMOTE IDENTIFICATION OF HYDROMETEORS USING THE AFGL POLARIMETRIC RADAR Colorado State University	Chandrasekar V	N 12 28/02/91 \$53,684	STOBIE 91-NC-121	
NEAR-RESONANT PROPERTIES OF NONLINEAR ORGANIC MATERIALS FOR OPTICAL DEVICES Univ of Central Florida	Stegeman George	N 12 28/03/91 \$80,000	LEE 91-NC-149	
INVESTIGATION OF THE DYNAMICS AND THERMODYNAMICS OF THE MOSOPHERE AND LOWER THERMOSPHERE (MALT) AND UPPER THERMOSPHERE AT THE POLAR Univ of Washington	Gonzalo Hernandez	N 12 01/03/91 \$38,841	STOBIE 91-NC-126	
PREPARATION OF CERAMIC LEAD ZINC NIOBATE (PZN) FOR PIEZOELECTRIC, ELECTROSTRICTIVE AND DIELECTRIC FUNCTIONS Photon Physics, Inc.	Nestor Ontario	N 06 05/02/91 \$49,593	LEE 91-NC-087	
NONLINEAR OPTICAL PROCESSES IN POLYMER FILMS Univ of Pennsylvania	Garito A. F.	N 12 13/02/91 \$599,999	A ERSTFELD 91-NC-097	
ORGANOSULFUR QUINONE POLYMERS AND PRECURSORS: SWITCHABLE ELECTRONIC, MAGNETIC AND OPTICAL PROPERTIES Texas Christian University	Watson William	N 12 06/02/91 \$63,531	HEDBERG 91-NC-089	
PHOTODYNAMICS OF VAN DER WAALS CLUSTERS AS STUDIED BY LASER INDUCED FLUORESCENCE State University of New York	Garvey James	N 12 18/03/91 \$188,490	BURGGRAF 91-NC-141	
ENHANCED SENSORS PRODUCED FROM MANOPHASE METAL OXIDES Manophase Technologies Corp.	Parker John	N 06 05/02/91 \$50,000	LEE 91-NC-086	

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1991 GORDON RESEARCH CONFERENCE ON ELASTOMERS Gordon Research Conferences Inc	Holden Geoffrey	N 12 13/02/91 \$4,000	HEDBERG 91-MC-092	
1991 GORDON RESEARCH CONFERENCE ON MOLTEN SALTS AND LIQUID METALS Gordon Research Conferences Inc	Hensen Friedrich	N 12 13/02/91 \$6,000	HEDBERG 91-MC-095	
1991 GORDON RESEARCH CONFERENCE ON THERMOSETTING HIGH PERFORMANCE POLYMERIC MATERIALS Gordon Research Conferences Inc	McGrath James	N 12 12/03/91 \$6,000	HEDBERG 91-MC-136	
1991 GORDON RESEARCH CONFERENCE ON DYNAMICS OF GAS-SURFACE INTERACTIONS Gordon Research Conferences Inc	Estrup Peder	N 12 25/03/91 \$8,900	BURGGRAF 91-MC-144	
NOVEL NONLINEAR OPTICAL POLYMERS WITH HIGH AND DURABLE ELECTROOPTIC COEFFICIENTS Physical Optics Corporation	Fremgen David	N 06 16/01/91 \$50,728	LEE 91-MC-059	\$50,000 01/06/91 \$50,000
MULTIFUNCTIONAL, NONMETALLIC, POLYMERIC MATERIALS FOR CHEMICAL SENSOR APPLICATIONS JACAN Aerospace Corporation	Salour Michael	N 06 16/01/91 \$50,000	A LEE 91-MC-061	
THE INITIATION OF LIGHTNING AND THE GROWTH OF ELECTRIC FIELDS IN THUNDERSTORMS Univ of Manchester Inst of Sci & Tech	Latham John	N 12 05/02/91 \$79,800	STOBIE 91-MC-088	
HYBRID MODELING FOR SHORT-TERM WEATHER PREDICTION Wells Research Corp	Raiter Elmar	N 12 01/03/91 \$138,959	STOBIE 91-MC-129	
ANALYTICAL METHODS USING SLATER-TYPE ORBITALS IN QUANTUM CHEMISTRY Florida A&M University	Jones Herbert	N 12 22/01/91 \$99,570	BURGGRAF 91-MC-065	

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ELECTRONIC DEFECT-MEDIATED PROCESSES IN IONIC SOLIDS LEADING TO DESORPTION FROM SURFACES Vanderbilt University	Tolk Norman	N 12 30/01/91 \$104,612	BURGGRAF 91-NC-070	
IMAGING-RADAR STUDY OF ATMOSPHERIC WINDS AND WAVES Utah State University	Adams Gene	N 12 27/02/91 \$120,008	STOBIE 91-NC-112	
VALIDATION OF FIRST-PRINCIPLES MODEL CALCULATIONS OF THE UPPER ATMOSPHERE Utah State University	Wickner V.	N 12 05/03/91 \$99,634	STOBIE 91-NC-133	
STRUCTURE, SPECTROSCOPY AND DYNAMICS OF DOUBLY CHARGED MOLECULAR IONS Wanne Siegbahn Institute of Physics	Larsson Mats	N 12 31/01/91 \$59,136	BURGGRAF 91-NC-078	
PARALLEL FINITE ELEMENT SEMI-LAGRANGIAN SCHEME FOR SHALLOW WATER EQUATIONS Naval Post Graduate School	Meta Beny	N 12 05/03/91 \$71,524	STOBIE 91-NC-132	
SOURCE MECHANISMS AND RADIO EFFECTS OF IONOSPHERIC PLASMA DISTURBANCES Massachusetts Institute of Technology	Lee Min-Chang	N 12 01/03/91 \$110,000	STOBIE 91-NC-123	
ION-MOLECULE REACTIONS Stanford University	Zare Richard	N 12 25/01/91 \$275,615	BURGGRAF 91-NC-068	
DYNAMICS AND STABILIZATION OF MATERIALS POSSESSING HIGH ENERGY CONTENT Columbia University	Turro Nicholas	N 12 05/03/91 \$100,000	HEDBERG 91-NC-134	
BIOLOGICAL PRODUCTION OF PHENYLACETYLENE BioTechnical Resources INC	Grund Alan	N 12 16/01/91 \$98,810	HEDBERG 91-NC-062	

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POLYMERIZATION OF CYCLOHEXADIENE DERIVATIVES: POLY(PARAPHENYLENE) AND NOVEL MATERIALS California Institute of Technology	AVENUES TO Grubbs	N 12 19/02/91 \$100,030	HEDBERG 91-NC-099	
CRAY 2 CALCULATIONS ON REMPI PROBABILITIES California Institute of Technology	McKoy	N 12 21/02/91 \$3,500	A BURGGRAF 91-NC-107	\$3,500 01/04/91 \$3,500
CRAY 2 CALCULATIONS ON THE REACTIONS AND DECOMPOSITIONS OF HYDROGEN AZIDES Johns Hopkins University	Dagdigian	N 12 21/02/91 \$1,500	A BURGGRAF 91-NC-104	\$1,500 01/04/91 \$1,500
INVESTIGATION OF ATMOSPHERIC ULTRAVIOLET AND FAR ULTRAVIOLET EMISSIONS Johns Hopkins University	Mens	N 12 28/02/91 \$124,700	STOBIE 91-NC-117	
ALUMOXANES: RATIONALIZATION OF BLACK BOX MATERIALS Harvard University	Barron	N 12 10/01/91 \$95,006	HEDBERG 91-NC-045	
RADAR INTERFEROMETER INVESTIGATIONS OF THE HORIZONTAL WINDS, VERTICAL VELOCITIES, VORTICITY, AND DIVERGENCE AROUND FRONTAL Clemson University	Larsen	N 12 27/02/91 \$81,400	STOBIE 91-NC-113	
MOLECULAR MULTILAYER ASSEMBLIES FOR NON-LINEAR OPTICAL APPLICATIONS Applied Polymer Systems, Inc.	Reddy	N 06 05/02/91 \$50,000	LEE 91-NC-084	

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NUMERICAL ANALYSIS OF THE CONDUCTIVITY MODULATED TRANSISTOR Univ of Wyoming	Wilamowski Boydan	N 07 03/01/91 \$27,485	WITT 91-NE-044	
CAF 91-191) CIRCUIT ARCHITECTURES WITH ASYMMETRIC, MULTIPLE QUANTUM WELLS FOR OPTICAL LOGIC GATES Tacan Corporation	Salour Michael	N 06 16/01/91 \$49,727	CRAIG 91-NE-050	
DIAMOND SUPERLATTICE TRANSFERRED ELECTRON DEVICES Crystallume	Landstrass Maurice	N 06 16/01/91 \$64,756	POMRENKE 91-NE-052	
CAF91-192) OXIDE-OXIDE CERAMIC MATRIX COMPOSITES Ultramet	Terlecki Janusz	N 06 16/01/91 \$48,852	SCHIOLER 91-NE-055	
III-V MODULATION AND SWITCHING DEVICES FOR OPTICAL SYSTEMS APPLICATIONS Univ of Michigan	Singh Jasprit	R 36 25/01/91 \$621,211	A CRAIG 91-NE-059	\$100,000 01/05/91 \$621,211
CAF91-192) SYNTHESIS OF CERAMIC MATRICES FROM CARBONACEOUS PRECURSORS MSMVC Inc.	Reynolds George	N 06 30/01/91 \$59,636	SCHIOLER 91-NE-067	
CAF91-192) ALTERNATIVE PRECURSORS FOR CVI OF TITANIUM DIOXIDE MATRICES MSMVC Inc.	Reynolds George	N 06 30/01/91 \$59,903	SCHIOLER 91-NE-069	
CAF91-192) NEW CONCEPT FRO STRUCTURAL CERAMICS Jenicon	Dixon G	N 06 30/01/91 \$48,912	SCHIOLER 91-NE-070	
CAF91-191) OPTIMIZATION OF RESONANT INTERBAND TUNNEL DEVICES Zytron Ltd	Seeny Mark	N 06 30/01/91 \$50,000	A WITT 91-NE-072	\$0 01/07/91 \$50,000

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(AF91-193) ORGANIC SEMICONDUCTOR HETEROSTRUCTURES: VISIBLE LIGHT EMITTING DIODES FROM SEMICONDUCTING POLYMERS UNIAx Corp.	Nicholas Colaneri	N 06 30/01/91 \$52,781	POMRENKE 91-NE-073	
(AF91-193) DIRECT IN SITU CHEMICAL SYNTHESIS OF ORGANIC HETEROSTRUCTURE FILMS ON INORGANIC SEMICONDUCTOR SUBSTRATES Enlighten	John Eckert	N 06 30/01/91 \$50,000	POMRENKE 91-NE-075	
NOVEL ELECTRONIC QUANTUM DOT DEVICES Yale University	Reed Mark	N 24 07/02/91 \$309,436	WITT 91-NE-081	
MATERIALS FOR FREQUENCY DOMAIN OPTICAL STORAGE Boston University	Lempicki A	N 36 08/02/91 \$601,304	CRAIG 91-NE-082	
2ND INT MEETING (APCT '91) FABRICATION AND CHARACTERIZATION OF SEM ICONDUCTOR OPTOELECTRONIC DEVICES AND CIRCUITS Univ of Florida	Holloway Paul	N 12 08/02/91 \$5,000	D WITT 91-NE-083	
DIFFERENTIAL PHOTOREFLECTANCE FROM BURIED INTERFACES IN LAYERED ELECTRONIC MATERIALS Univ of Minnesota	Sydor Michael	N 24 05/03/91 \$103,103	POMRENKE 91-NE-087	
THE EFFECTS OF D.C. & A.C. ELEC FIELDS ON THE SUBCRITICAL CRACK PROPAGATION RATE & MICROHARDNESS IN SELECTED DIELECTRIC GLASSES Univ of Illinois	Brown Sherman	N 36 05/03/91 \$436,613	SCHIOLER 91-NE-088	\$164,102 01/08/91 \$453,872
THE NUCLEATION OF CRYSTALLINE FILMS FROM VAPOR PHASE REACTANTS Brown University	Sheldon Brian	N 39 05/03/91 \$453,872	A SCHIOLER 91-NE-090	
MODERN MODAL ANALYSIS AS TECHNIQUE TO DETECT/EVALUATE CRACK DAMAGE IN CERAMIC PARTS/STRUCTURES Univ of Denver	Carpenter Steve	N 36 05/03/91 \$305,010	SCHIOLER 91-NE-094	

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1991 CONFERENCE ON NEURAL INFORMATION PROCESSING SYSTEMS - NATURAL AND SYNTHETIC Yale University	Moody	N 12 11/03/91 \$5,000	SUDDARTH 91-NE-100	
MICROSTRUCTURAL DESIGN FOR TOUGH CERAMICS Lehigh University	Chan	N 36 15/03/91 \$569,789	SCHIOLER 91-NE-104	
COMPRESSION FAILURE OF CARBON FIBER MICROCOMPOSITES Univ of Utah	Bascom	N 36 21/03/91 \$182,323	SCHIOLER 91-NE-107	
OPTICAL COMPUTING AND OPTICAL SIGNAL PROCESSING Sparta Inc	Lis	N 18 21/03/91 \$583,117	A CRAIG 91-NE-109	\$295,807 01/07/91 \$583,117
INTERNATIONAL CONFERENCE ON MARTENSITIC TRANSFORMATIONS (ICOMAT-92) Univ of Illinois	Wayman	N 12 26/03/91 \$5,000	SCHIOLER 91-NE-116	
AROMATIC ACETYLENIC MATRIX RESIN PRECURSORS FOR CARBON/CARBON COMPOSITES Univ of Dayton	Chartoff	N 36 28/03/91 \$415,334	SCHIOLER 91-NE-117	
NOVEL OPTICAL COMPUTER ARCHITECTURE UTILIZING RECONFIGURABLE INTERCONNECTS Technical Imaging Services, Inc.	Murdock	N 06 22/03/91 \$49,890	A CRAIG 91-NE-111	\$49,890 01/07/91 \$49,890
COHERENT TRANSIENT SYSTEMS EVALUATION Boeing Aerospace & Electronics Co.	Babbitt	N 24 05/03/91 \$475,037	CRAIG 91-NE-091	
(AF91-193) LAMELLAR ORGANIC/INORGANIC BRONZES Cape Cod Research, Inc.	Dixon	N 06 30/01/91 \$55,450	PONRENKE 91-NE-063	

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A MECHANISTIC STUDY OF MICROALLOYING EFFECTS IN NIAI General Electric Aircraft Business Group	Darolia	R 36 07/02/91 \$479,427	A ROSENSTEIN 91-NE-079	\$80,522 01/07/91 \$479,427
OPTICALLY POWERED, OPTOELECTRONIC SPATIAL LIGHT MODULATORS Univ of Southern California	Forest	N 36 05/03/91 \$485,813	CRAIG 91-NE-095	
(AF91-1923) CERAMIC COMPOSITES BY LIQUID-VAPOR INFILTRATION Applied Science, Inc.	Ting	N 06 16/01/91 \$64,728	SCHIOLER 91-NE-053	
VAPOR CARBON/SILICON CARBIDE (VVS): A HIGH PERFORMANCE, NEAR-NET-SHAPE COMPOSITE MATERIAL Applied Science, Inc.	Lake	N 06 16/01/91 \$54,206	SCHIOLER 91-NE-054	
CLOCK SKEW FREE OPTICAL SIMD INTERCONNECTS USING RING ARRAY PROCESSING TOPOLOGY & DISPERSION FREE OPTICAL ELEMENTS City College - CUNY	Li	N 36 09/01/91 \$314,150	CRAIG 91-NE-047	\$269,375 10/07/91 \$520,000
STUDIES OF NONLINEAR OPTICAL LOGIC GATES FOR DIGITAL OPTICAL COMPUTING Univ of California	Yeh	N 36 04/01/91 \$520,000	A CRAIG 91-NE-045	
HIERARCHICAL LEARNING OF COMPLEX SYSTEMS Univ of California	Jeffries	N 36 10/01/91 \$465,621	SUDDARTH 91-NE-049	
GROWTH OF TILTED SUPERLATTICES AND SERPENTINE SUPERLATTICES FOR QUANTUM WIRE STRUCTURES Univ of California	Petroff	R 36 31/01/91 \$452,726	POMRENKE 91-NE-076	
STUDIES OF LATTICE-MISMATCHED AND LOW-TEMPERATURE-GROWN SEMICONDUCTOR MULTIPLE-PHASE SYSTEMS Univ of California	Wang	R 36 05/03/91 \$655,653	A WITT 91-NE-092	\$175,000 15/07/91 \$302,000

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ELECTRONIC PROPERTIES OF LOW-TEMPERATURE GROWN III/V THIN FILMS Univ of California	deber Eicke	N 36 22/03/91 \$490,990	A WITT 91-NE-110	\$185,864 01/07/91 \$490,990
OPTOELECTRONICS BASED ON SiGe/Si HETEROSTRUCTURES Univ of California	Wang K	N 03 25/03/91 \$70,000	WITT 91-NE-115	
(AF91-193) ORGANIC/IR-SEMICONDUCTOR HETEROJUNCTIONS FOR LOW-COST HIGH TEMPERATURE IR ARRAYS Santa Barbara Focalplane	Jones Colin	N 06 30/01/91 \$49,729	POMRENKE 91-NE-074	
(AF91-191) QUANTUM STRUCTURES AND DEVICES, MATERIAL DEPENDENCY Scientific Research Associates, Inc.	Grubin Harold	N 06 16/01/91 \$50,352	WITT 91-NE-051	
MICROSTRUCTURE AND EPITAXY IN OXIDE SUPERCONDUCTOR THIN FILMS AND DEVICES Pennsylvania State University	Carlin Altat	N 24 11/03/91 \$39,415	WEINSTOCK 91-NE-097	
SUPERCONDUCTING FLUX-COUPLED FAST SWITCHING DEVICE FROM YBCO FILMS ON SILICON Advanced Fuel Research Inc.	Fenner David	N 06 21/03/91 \$60,251	A WEINSTOCK 91-NE-108	\$60,251 01/08/91 \$60,251
FAST ADAPTIVE MANEUVERING EXPERIMENT George Mason University	Hintz Kenneth	N 08 15/03/91 \$60,000	SUDDARTH 91-NE-103	
A STUDY OF PROCESSING AND PROPERTIES OF COATED HPZ FIBER/GLASS - CERAMIC MATRIX COMPOSITES United Technologies Research Center	Brennan John	R 12 12/03/91 \$300,731	SCHIOLER 91-NE-102	
INTERFACIAL STUDIES OF COATED FIBER/GLASS CERAMIC MATRIX COMPOSITES United Technologies Research Center	Brennan John	N 36 28/03/91 \$445,368	SCHIOLER 91-NE-118	

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ACTIVE GAS CORROSION OF AEROSPACE CERAMICS Colorado School of Mines	Readey Dennis	N 36 02/01/91 \$378,345	SCHIOLER 91-NE-042	
(AF91-192) LOW COST ADVANCED STRUCTURAL CERAMIC COMPOSITES San Juan Technologies	Schneider John	N 06 10/01/91 \$49,871	SCHIOLER 91-NE-068	
(AF91-191) QUANTUM STRUCTURES AND DEVICES Deryoush Growth Engineering & Mgmt Srv	Deryoush Afshin	N 06 27/02/91 \$47,970	WITT 91-NE-085	
(AF91-191) TICSIS DOUBLE BARRIER QUANTUM WELL FOR HIGH TEMPERATURE FAST SWITCHING OPERATIONS Advanced Technology Materials Inc.	Lin Jo Yung	N 06 30/01/91 \$50,000	WITT 91-NE-065	
(AF91-192) NOVEL MOLECULAR SOURCES FOR DISPERSING BORON IN CARBON- CARBON COMPOSITES Advanced Technology Materials Inc.	Chen Phillip	N 06 30/01/91 \$50,000	A SCHIOLER 91-NE-066	\$50,000 01/06/91 \$50,000
MRS SYMPOSIUM ON CHEMICAL VAPOR DEPOSITION OF REFRACTORY METALS AND CERAMICS Materials Research Society	Ballance John	N 05 02/01/91 \$5,000	SCHIOLER 91-NE-041	
SYNTHESES AND PROCESSING OF CERAMICS: SCIENTIFIC ISSUES Materials Research Society	Ballance John	N 05 25/01/91 \$5,000	D SCHIOLER 91-NE-060	
LOW TEMPERATURE (LT) GASES AND RELATED MATERIALS Materials Research Society	Ballance John	N 12 25/02/91 \$11,000	A WITT 91-NE-084	\$11,000 15/06/91 \$11,000
INTERNATIONAL SUMMER SCHOOL/WORKSHOP ON THIN FILM SCIENCE & TECHNOLOGY IN THE 21ST CENTURY Materials Research Society	Ballance John	N 12 05/03/91 \$5,000	POMRENKE 91-NE-089	

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1991 MRS SYMPOSIUM ON WIDE BAND-GAP SEMICONDUCTORS Materials Research Society	Ballance John	N 12 11/03/91 \$3,000	POMRENKE 91-NE-096	
ROLE OF INTERFACIAL PROPERTIES ON STEADY-STATE AND NON-STEADY STATE FROST-MATRIX CRACKING IN CERAMIC MATRIX UNIV of Cincinnati	Singer Kuo	N 36 11/03/91 \$271,787	SCHIOLER 91-NE-101	
ELECTRONIC PROCESSES IN HETEROSTRUCTURED, STRAINED-LAYER MATERIALS AND LATERALLY PATTERNED SURFACE SUPERLATTICES Princeton University	Isue D.	P 36 07/02/91 \$454,821	A WITT 91-NE-078	
CAFM-1913 QUANTUM STRUCTURES AND DEVICES Astron Corporation	Corretti Terence	N 06 30/01/91 \$43,959	WITT 91-NE-064	
CAFM-1913 CAPACITIVE QUANTUM CARRIER DEVICE DOD Associates, Inc.	Crowell Larry	N 06 01/03/91 \$52,309	WITT 91-NE-086	
MICROSTRUCTURE AND RELIABILITY OF CERAMICS Carnegie-Mellon University	Kashey Michael	N 26 18/03/91 \$543,330	SCHIOLER 91-NE-106	
CAFM-1913 ORGANIC SEMICONDUCTOR FILM EPITAXY MicroOptics Technologies, Inc.	Buchholz Jeffrey	N 06 20/01/91 \$54,976	POMRENKE 91-NE-062	
TWO-DIMENSIONAL OPTICAL SWITCHING AND LOGIC DEVICES FOR COMMUNICATION AND COMPUTING SYSTEMS UNIV of New Mexico	Chen Julian	N 36 22/01/91 \$564,200	A CRAIG 91-NE-058	\$274,400 01/05/91 \$564,200
1991 GORDON RESEARCH CONFERENCE ON SOLID STATE STUDIES IN CERAMICS Gordon Research Conferences Inc	Cruickshank Alexander	N 12 31/01/91 \$5,000	SCHIOLER 91-NE-077	

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CERAMICS WITH SUPERELECTRICAL AND SUPERMECHANICAL PROPERTIES Gordon Research Conference, Inc	Crucksmank	N 12 16/03/91 \$5,000	SCHIOLER 91-NE-105	
(AF91-193) A HIGHLY-EFFICIENT, LARGE-AREA LIGHT-EMITTING DEVICE Physical Optics Corporation	Kim	N 06 17/01/91 \$50,859	POMRENKE 91-NE-056	
(AF91-191) DEVELOPMENT OF A MULTIPLE WAVELENGTH LASER DIODE (MWLD) IN THE 1.1 TO 1.6 MICRON RANGE Spectrum Photonics	West	N 06 30/01/91 \$40,023	WITT 91-NE-071	
NOVEL SI-YBCO REACTIVE PATTERNING TECHNOLOGY FOR MANUFACTURING OF LARGE AREA HIGH TC SUPERCONDUCTING ELECTRONIC DEVICES Thin Film Concepts Inc	Weinman	N 06 25/03/91 \$49,603	CRAIG 91-NE-112	
JOSEPHSON JUNCTION DIGITAL WAVEFORM GENERATION FOR VERY WIDEBAND RADARS Sierra Monolithics, Inc.	None	N 06 25/03/91 \$43,983	WEINSTOCK 91-NE-113	
WORKSHOP ON COMPLEXITY AND COMPUTATION IN NEURAL DYNAMICAL SYSTEMS Ohio State University	Pollock	N 06 02/01/91 \$19,343	SUDDARTH 91-NE-043	
11TH INTERNATIONAL CONGRESS FOR STEREOLUOY Loma Linda University	McMillen	N 12 11/03/91 \$13,000	SCHIOLER 91-NE-099	
CONDUCT OF THE TENTH INTERNATIONAL CONFERENCE ON CRYSTAL GROWTH AND THE EIGHTH INTERNATIONAL SUMMER SCHOOL ON CRYSTAL GROWTH Massachusetts Institute of Technology	Witt	N 12 25/03/91 \$10,000	WITT 91-NE-114	
DEVELOPMENT OF PROCESS TECHNOLOGY FOR FABRICATION OF MESOSCOPIC DEVICES Stanford University	Simon	N 36 11/03/91 \$785,080	WITT 91-NE-098	

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INDUCTIVE LOGIC COMPUTER ARCHITECTURES Johns Hopkins University	Fry	N 24 07/02/91 \$121,400	SUDDARTH 91-WE-080	
STRUCTURE AND STABILITY OF CARBON/CARBON AND CARBON/CARBIDE INTERFACES West Virginia University	Cooper	N 36 05/03/91 \$549,674	SCHIOLER 91-WE-093	
FABRICATION OF MESFETS IN GAAS GROWN ON GGG Lincoln Laboratory/MIT	Calawa	N 12 08/01/91 \$104,056	A WITT 91-WE-046	\$75,000 15/02/91 \$104,056

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THE MECHANISMS & EFFECTS OF THE PLANT ACTIVATION OF CHEMICALS IN THE ENVIRONMENT Univ of Illinois	Flemer Michael	R 36 02/01/91 \$399,514	CERVENY 91-NL-032	
COMPARING PERFORMANCE ON IMPLICIT MEMORY Rice University	Roediger, III Henry	N 12 15/01/91 \$25,000	A HADDAD 91-NL-036	\$25,000 15/06/91 \$25,000
PHOTORECEPTORS REGULATING CIRCADIAN BEHAVIOR: A MOUSE MODEL Univ of Virginia	Foster Russell	N 36 15/01/91 \$376,266	BERRY 91-NL-040	
RECEPTOR SUBSTRATES OF NEURONAL PLASTICITY & LEARNING Univ of Illinois	Gabriel Michael	P 36 16/01/91 \$272,805	HADDAD 91-NL-041	
REPRESENTATIONS OF SHAPE IN OBJECT RECOGNITION AND LONG-TERM VISUA L MEMORY Yale University	Tarr Michael	N 36 16/01/91 \$214,796	HADDAD 91-NL-042	
BIODEGRADATION OF 2,4,6-TRINITROPHENOL: STRATEGIES FOR THE SELECT- ION OF NOVEL CATABOLIC POTENTIAL Univ of Stuttgart	Knackmuss H.	N 12 30/01/91 \$63,500	A CERVENY 91-NL-043	\$63,500 15/06/91 \$190,500
PERCEPTION OF TEXTURE DENSITY: CONTRAST AND ADAPTATION Univ of Virginia	Proffitt Dennis	N 36 06/02/91 \$207,682	HADDAD 91-NL-045	
VELOCITY INFORMATION PROCESSING IN THE CENTRAL AND PERIPHERAL VISU AL FIELDS Univ of Illinois	Kanvov Robert	N 36 06/02/91 \$246,567	HADDAD 91-NL-046	
USING THE CASCADE MODEL TO MODEL TRANSFER OF TRAINING Univ of Iowa	Lonman David	N 12 06/02/91 \$28,465	HADDAD 91-NL-050	

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INVESTIGATING THE RELATIONSHIP BETWEEN REPETITION PRIMING AND SKILL ACQUISITION Univ of Utah	Waltz Dan	N 24 15/02/91 \$50,999	A FREGLY 91-NL-052	\$25,284 15/06/91 \$25,284
CONTRIBUTION OF PRIMATE COGNITIVE AREAS TO FORM PROCESSING Univ of Rochester	Merigan William	N 36 15/02/91 \$510,975	HADDAD 91-NL-053	
IMPROVING MENTAL REPRESENTATIONS OF TEXT INFORMATION: COMPUTATIONAL AND BEHAVIORAL METHODS Univ of Georgia	Britten Bruce	N 36 15/02/91 \$300,000	FREGLY 91-NL-056	
A MODEL OF GEOGRAPHICAL/NAVIGATION AWARENESS Univ of Illinois	Wickens Christopher	N 24 15/02/91 \$147,034	FREGLY 91-NL-058	
A NOVEL ADVANCED COGNITION PROCESS FOR CONTAMINATION SITE TREATMENT LYNNTECH, Inc.	Murphy Oliver	N 06 22/02/91 \$50,000	CERVENY 91-NL-060	
A SIMPLE ASSAY FOR THE DETECTION AND IDENTIFICATION OF TOXIC CHEMICALS BIOTRAX, Inc.	Grillo Santo	N 06 22/02/91 \$50,000	CERVENY 91-NL-063	
DEVELOPMENT AND APPLICATION OF A MODEL OF INDIVIDUAL DECISION-MAKING IN MILITARY CONTEXTS Univ of Michigan	Smith Edward	N 26 25/02/91 \$236,225	A FREGLY 91-NL-065	\$103,282 01/06/91 \$296,225
CONTEXT AND REPROCESSING FLUENCY Univ of Toronto	MacLeod Colin	N 36 04/03/91 \$320,062	FREGLY 91-NL-066	
COMPLEX AUDITORY SIGNALS Univ of Florida	Green David	N 36 04/03/91 \$673,914	HADDAD 91-NL-069	

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PERCEPTION OF COMPLEX ACOUSTIC PATTERNS Univ of Wisconsin	warren Richard	P 36 20/03/91 \$503,232	HADDAC 91-NL-073	
RETINOCORTICAL WIRING OF MULTIPLEXED PARVOCELLULAR PATHWAYS SRI International	Martinez-Uriebe Eugenio	N 24 20/02/91 \$326,650	HADDAC 91-NL-074	
CONFLICT PARADIGMS AND THE INSTANT THEORY Univ of Illinois	Lagan Gordon	N 30 20/03/91 \$333,639	FREGLY 91-NL-075	
RADIOFREQUENCY RADIATION EFFECTS ON CULTURED FETAL NEURONS Univ of Texas	Armstrong Deborah	N 36 20/03/91 \$515,410	D CERVENY 91-NL-076	
CHARACTERISTICS OF THE SIMULATION NEURITIC Klein Associates, Inc.	Isambok Caroline	N 24 05/02/91 \$190,703	FREGLY 91-NL-044	
DUAL-ANALYTE ELECTROCHEMICAL IMMUNOSENSORS FOR MONITORING PESTICIDES AND THEIR METABOLIC PRODUCTS AT CONTAMINATED SITES Enzyme Technology Research Group, Inc.	O'Daly John	N 06 22/02/91 \$50,000	CERVENY 91-NL-064	
A SMALL-SCALE, ON-SITE HAZARDOUS WASTE TREATMENT PROCESS Cape Cod Research, Inc.	Dixon Brian	N 06 22/02/91 \$55,451	CERVENY 91-NL-059	
EFFECTS OF EARLY BRIGHT, LATE BRIGHT AND DIM ILLUMINATION ON CIRCA DIAN NEUROENDOCRINE, ELECTROPHYSIOLOGICAL, & BEHAVIORAL RESPONSES Northern Arizona University	Hannon Patrick	N 12 15/03/91 \$76,385	A HADDAC 91-NL-072	\$76,889 15/05/91 \$76,889
DELPHI OPERATIONAL SURVEY SYSTEM Delphi Groupe, Inc.	Gauny R.	N 06 22/02/91 \$49,277	CERVENY 91-NL-062	

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COLATION CHARACTERIZATION OF GENE ENCODING PHENOL HYDROXYLASE PRO PSEUDOMONAS SPECIES Michigan State University	Einey	N 36 02/01/91 \$372,715	CERVENY 91-NL-030	
INTONATION AND SENTENCE PROCESSING Northwestern University	Weldon	N 26 06/02/91 \$562,063	FREGLY 91-NL-047	
MULTIPLE REPRESENTATIONS OF SPATIAL KNOWLEDGE IN COGNITIVE MAPS Univ of Pittsburgh	Hirtl	N 36 13/02/91 \$299,926	FREGLY 91-NL-057	
BIOCHEMICAL MECHANISMS OF HEPATOTOXICITY OF 4,4'-METHYLENEDIAMINE Univ of Texas Medical Branch	Ansari	N 36 02/01/91 \$232,086	CERVENY 91-NL-035	
SUPPORTED LIPID DELAYERS FOR CHEMICAL DETECTION AND RAPID IDENTIFI CATION OF ENVIRONMENTAL CHEMICALS Michigan State University	Tien	N 36 02/01/91 \$474,941	CERVENY 91-NL-031	
DEGRADATION OF ENVIRONMENTAL POLLUTANTS: NORMAL AND TRANSGENIC PLAS Univ of Washington	Sorison	N 36 02/01/91 \$375,000	CERVENY 91-NL-029	
IDENTIFYING WHEN SHARED ATTENTION EVASIES ZERO, ONE, OF MANY ATTEN TIONAL MECHANISMS Univ of Washington	Palmer	N 36 13/01/91 \$460,250	FREGLY 91-NL-039	
THE USE OF COTTON GIN WASTE IN THE CLEAN UP AND REMEDIATION OF GITE CONTAMINATED WITH OIL Davis Research, Inc.	Davis	N 06 22/02/91 \$49,710	CERVENY 91-NL-061	
MEASURING VARIATION IN ECOSYSTEM SENSITIVITY TO STRESS Virginia Polytechnic Inst & State Univ	Cairns, Jr.	N 36 02/01/91 \$182,474	CERVENY 91-NL-036	

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PATTERN RECOGNITION AND CLASSIFICATION BY MONKEYS Research Foundation for Mental Hygiene	Gibson John	N 36 13/02/91 \$220,197	HADDAD 91-NL-054	
JORDON RESEARCH CONFERENCE ON CHRONOLOGY 1991 Jordan Research Conferences Inc	Hastings J. Woodland	N 12 02/01/91 \$6,000	BERRY 91-NL-037	
ALTERATIONS IN METABOLISM, RECEPTORS AND ENZYMES IN LIMBED THALAMU S AND CORTEX ASSOCIATED WITH LEARNING Wake Forest University	Vogt Brent	N 36 02/01/91 \$295,741	HADDAD 91-NL-033	
THE ROLE OF VISUAL ATTRIBUTES IN THE PERCEPTION OF TEXTURE AND MOT ION Outgers - The State University	Peabottoms Thomas	N 26 06/02/91 \$285,225	HADDAD 91-NL-049	\$10,000 01/10/91 \$10,000
CONFERENCE ON THE ARCHITECTURE OF INTELLIGENT SYSTEMS Outgers - The State University	Pylsny Zenon	N 12 12/02/91 \$10,000	A FREGLY 91-NL-051	
FACILITATION AND INTERFERENCE IN IDENTIFICATION OF PICTURES AND MO RDS New York University	Snodgrass Joan	P 24 06/02/91 \$117,216	FREGLY 91-NL-049	
VISUAL NEURAL DEVELOPMENT AND CHROMATIC ADAPTATION New York University	Maloney Lawrence	N 36 04/03/91 \$442,354	HADDAD 91-NL-068	
TRANSVERSE CHROMATIC ADAPTATION IN THE NERVOUS SYSTEM New York University	Snodgrass Robert	N 36 04/03/91 \$607,346	HADDAD 91-NL-070	
NEUROCHROMATIC INVESTIGATIONS OF CORTICAL REGIONS UNDERLYING SHORT- TERM MEMORY New York University	Williamson Samuel	N 12 25/03/91 \$174,567	A FREGLY 91-NL-077	\$174,567 01/07/91 \$174,567

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MONAURAL AND PINAURAL PROCESSING OF COMPLEX ASYMMETRIC Univ of Connecticut Health Center	Transitive Constitution	R 36 04/03/91 \$336,353	HADDAD 91-NL-071	
INTERACTION OF NEUROPEPTIDES COLLOCALIZED IN SON NEURONS Georgia State University	Albert H. Elliott	N 60 12/02/91 \$814,529	HADDAD 91-NL-055	
MECHANISMS OF HUMAN VISUAL ATTENTION Johns Hopkins University	Yantis Steven	N 36 04/03/91 \$238,185	FREGLY 91-NL-067	
BIOCHEMICAL, GENETIC, AND PHYSIOLOGICAL CONTROL OF POLLUTANT RISK ORAGATION Cornell University	Nedden EUGENE	N 36 02/01/91 \$322,773	CERVENY 91-NL-034	

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PROBABILISTIC AND STOCHASTIC METHODS IN ANALYSIS, WITH APPLICATIONS Prometheus, Inc.	Byrnes James	N 01 04/01/91 \$10,152	A SJOGREN 91-NM-117	\$10,152 01/07/91 \$10,152
MATHEMATICAL MODELLING OF SEMICONDUCTORS Purdue University	Markowich Peter	N 36 08/01/91 \$270,170	NACHMAN 91-NM-119	
APPLICATIONS OF APPROXIMATION THEORY IN ANTENNA DESIGN, SIGNAL PROCESSING AND FILTERING, II Prometheus Inc	Byrnes James	N 12 08/01/91 \$58,110	SJOGREN 91-NM-120	
WAVELET ANALYSIS OF IMAGES AND CONTOURS Petrologic, Inc	Greenwood Don	N 06 16/01/91 \$43,953	SJOGREN 91-NM-122	
EFFICIENT TECHNIQUES FOR SIGNAL/IMAGE ANALYSIS AND RECONSTRUCTION Intar Corporation	Schroeder John	N 06 16/01/91 \$43,651	SJOGREN 91-NM-126	
MULTI-RESOLUTION IMAGE FUSION Alphatech Inc	Tenny Robert	N 06 16/01/91 \$50,230	SJOGREN 91-NM-127	
A REAL TIME SYSTEM FOR MULTI-SENSOR IMAGE ANALYSIS THROUGH PYRAMICAL SEGMENTATION Cognitech Inc	Rudin Leonid	N 06 16/01/91 \$50,000	A SJOGREN 91-NM-128	\$50,000 10/07/91 \$50,000
FAST COMPUTATIONAL METHODS FOR OF AND INTERFERENCE REDUCTION Argosystem Inc	McCarthy Frank	N 36 17/01/91 \$1,503,372	A NACHMAN 91-NM-130	\$142,801 01/07/91 \$1,503,372
AUTOMATED SUPPORT FOR SOFTWARE ENGINEERING Kestrel Institute	Smith Douglas	N 36 17/01/91 \$471,778	HOLLAND 91-NM-131	

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NONLINEAR ROTATIONAL MANEUVERS AND STABILIZATION OF SPACE STATION Univ of Nevada	Singh	N 24 23/01/91 \$162,304	D JACOBS 91-NM-136	
TRANSITIONS, DEFECTS AND WHISKERED MICROSTRUCTURES Univ of Minnesota	Luskin	N 36 29/01/91 \$570,598	A NACHMAN 91-NM-141	\$177,416 01/06/91 \$570,598
A NOVEL DATA COMPRESSION TECHNIQUE ELISMO TEK	Estouder	N 06 31/01/91 \$43,504	SJOGREN 91-NM-142	
NEW METHODS AND ALGORITHMS FOR NONLINEAR SIGNAL PROCESSING Prometheus, Inc.	Engnev	N 06 31/01/91 \$65,420	SJOGREN 91-NM-143	
FACTOR EXPANSIONS FOR MULTIDIMENSIONAL IMAGE OPERATIONS, Inc	Yallimari	N 05 31/01/91 \$49,500	SJOGREN 91-NM-146	
WAVELET-BASED SIGNAL/IMAGE ANALYSIS AND RECONSTRUCTION FASTMAN, Inc.	Tucker	N 06 31/01/91 \$50,000	SJOGREN 91-NM-147	
ADAPTIVE APPROXIMATE QUERY PROCESSING Univ of Illinois	Liu	N 12 04/02/91 \$38,500	WAKSMAN 91-NM-151	
HYBRID CONTROL AND TRACKING PROBLEMS Univ of Alberta	Elliot	N 24 04/02/91 \$63,052	JACOBS 91-NM-153	
INVERSE AND CONTROL PROBLEMS IN ELECTROMAGNETICS Univ of Delaware	Kleiman	N 36 04/02/91 \$310,881	JACOBS 91-NM-154	

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EFFICIENT ALGORITHMS AND DATA STRUCTURES IN GEOMETRIC DESIGN Purdue University	Chanderjit	N 06 07/02/91 \$30,000	A GLASSMAN 91-NM-157	\$30,000 01/06/91 \$30,000
SOME PROBLEMS IN SEQUENTIAL ANALYSIS Univ of Kentucky	Govindarajulu	N 36 08/02/91 \$107,368	SJOGREN 91-NM-159	
NON-CONVEX PROBLEMS IN PDE: EQUILIBRIUM THEORY AND DYNAMICS Univ of Tennessee	Alkekou	N 06 12/02/91 \$5,000	A NACHMAN 91-NM-162	\$5,000 01/04/91 \$5,000
ADAPTIVE CONTROL OF LINEAR AND NONLINEAR SYSTEMS Iale University	A. Stephen	N 36 20/02/91 \$261,159	JACOBS 91-NM-167	
EFFICIENT AND FLEXIBLE ALGORITHMS FOR DIGITAL SIGNAL PROCESSING ON MULTIPLE INDEPENDENT NODE PARALLEL COMPUTERS Aware, Inc.	Richard	N 26 20/02/91 \$2,131,203	NACHMAN 91-NM-171	
EFFICIENT COMPUTATIONAL METHODS FOR ESTIMATING SOME PERFORMANCE MEASURES IN LARGE-SCALE STOCHASTIC NETWORKS Boston University	Eugene	N 12 20/02/91 \$132,302	SJOGREN 91-NM-172	
SPECTRAL METHODS AND SUN ACCELERATION ALGORITHMS Univ of Michigan	John	N 24 20/02/91 \$156,745	D SJOGREN 91-NM-173	
INVERSE PROBLEMS IN NONDESTRUCTIVE EVALUATIONS Univ of Delaware	Fadil	N 10 25/02/91 \$51,913	NACHMAN 91-NM-175	
CENTER FOR PARALLEL OPTIMIZATION Univ of Wisconsin	Olvi	R 36 05/03/91 \$984,718	GLASSMAN 91-NM-183	

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PARALLEL METHODS FOR SOLVING CONTINUOUS SPACE MULTIFACILITY LOCATION PROBLEMS Univ of Wisconsin	Korpi- James	N 12 06/03/91 \$74,751	GLASSMAN 91-NM-187	
SYSTEM IDENTIFICATION AND UNCERTAINTY QUANTIFICATION FOR CONTROL DESIGN Univ of Iowa	Gr-Wei	N 36 12/03/91 \$272,325	JACOBS 91-NM-188	
OPTIMAL RESOURCE ALLOCATION AND BINDING IN HIGH-LEVEL SYNTHESIS Univ of Wisconsin	Jair	N 24 12/03/91 \$121,660	GLASSMAN 91-NM-190	
MATHEMATICAL MODELS OF NON-LINEAR MECHANICAL AND ELECTRICAL SYSTEMS AND THEIR QUALITATIVE BEHAVIOR Boston University	Levi	N 36 20/03/91 \$309,350	NACHMAN 91-NM-192	
FUZZY SET AND NEURAL NET METHODS FOR COMPUTER VISION Univ of Missouri	Arishonbayan	N 26 20/03/91 \$391,868	WAKSMAN 91-NM-194	
NON-LINEAR WAVE PROPAGATION Univ of Colorado	Ablowitz	R 24 26/03/91 \$169,025	NACHMAN 91-NM-197	
THE EFFECT OF GRAVITY ON THE DEPOSITION OF THIN FILMS: THE PHYSICAL VAPOR TRANSPORT OF COPPER PHthalocyanine Univ of Maryland	Fisher	N 36 26/03/91 \$300,000	NACHMAN 91-NM-198	
WAVELETS IN SIGNAL DETECTION AND IDENTIFICATION COMPENSATIVE SIGNAL PROCESSING TECHNOLOGY EVALUATION Lockheed Missiles & Space Co Inc	Rathavan	N 48 04/02/91 \$1,507,872	NACHMAN 91-NM-150	
THE EPISODAL ASSOCIATIVE MEMORY Aerospace Medical Research Laboratory	LeClair	N 12 10/01/91 \$100,000	A GLASSMAN 91-NM-133	\$100,000 02/03/91 \$100,000

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DECONVOLUTION USING KNOWN AND ESTIMATED CONSTRAINTS Aerospace Medical Research Laboratory	Hatson	N 12 23/01/91 \$50,000	A NACHMAN 91-NM-139	\$50,000 01/02/91 \$50,000
MULTI-SCALE DILATION EQUATIONS AND IFS Georgia Institute of Tech	Chan	N 36 17/01/91 \$74,674	NACHMAN 91-NM-132	
MODELING AND CONTROL OF NONLINEAR SYSTEMS Univ of Southern California	Hauser	N 24 23/01/91 \$90,554	A JACOBS 91-NM-134	\$44,261 01/05/91 \$90,554
MODEL BASED METHODS FOR UNDERSTANDING OF SYNTHETIC APERTURE RADAR IMAGES Univ of Southern California	Challeppa	N 12 06/02/91 \$293,981	SJOGREN 91-NM-162	
MATHEMATICAL - COMPUTATIONAL MODELS OF NEURAL NETWORKS AS DYNAMICAL SYSTEMS Univ of Southern California	Blum	N 36 05/03/91 \$297,636	JACOBS 91-NM-192	
THE INVESTIGATION OF SMART STRUCTURES USING BONDED OR EMBEDDED STRUCTURES North Carolina A&T State University	Ladd	N 36 03/02/91 \$330,170	D WAKSMAN 91-NM-161	
DYNAMICAL SYSTEMS THEORY AND APPLICATIONS Northern Arizona University	Perko	N 36 08/01/91 \$44,707	NACHMAN 91-NM-116	
1991 INTERNATIONAL WORKSHOP ON THE HOL (HIGHER ORDER LOGIC) VERIFICATION SYSTEM AND ITS APPLICATIONS Univ of California	Archer	N 6 16/02/91 \$24,669	HOLLAND 91-NM-166	
NONLINEAR ADAPTIVE ALGORITHMS FOR MULTISCALE PROBLEMS IN PARTIAL DIFFERENTIAL EQUATIONS AND SCIENTIFIC COMPUTING Univ of California	Osner	N 36 20/02/91 \$829,195	NACHMAN 91-NM-169	

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STOCHASTIC MODELING AND ANALYSIS OF PERCEPTION LEARNING ALGORITHMS Univ of California	Karssen Noll	N 24 26/03/91 \$144,739	JACOBS 91-NM-201	
LOCALIZATION AND TRANSPORT IN RANDOM MEDIA Institute for Advanced Study	Glencer Thomas	N 12 25/02/91 \$75,000	NACHMAN 91-NM-177	
A COMBINATORIAL APPROACH FOR SIGNAL/IMAGE ANALYSIS AND RECONSTRUCTION Technology International, Inc	Chattree Neelu	N 06 16/01/91 \$49,947	SJOGREN 91-NM-123	
EFFICIENT TECHNIQUES FOR SIGNAL/IMAGE ANALYSIS AND RECONSTRUCTION: AN APPROACH USING WAVELFIS AND COMPUTATIONAL GEOMETRY Venture Scientific, Inc.	Stiller Peter	N 06 31/01/91 \$49,959	SJOGREN 91-NM-145	
FREQUENCY DOMAIN METHODS FOR THE CONTROL OF DISTRIBUTED PARAMETER SYSTEMS Pennsylvania State University	Moul-Myndheim M.	N 24 04/02/91 \$121,250	JACOBS 91-NM-155	
FAST ACCURATE SOLUTION OF LARGE LEAST SQUARES PROBLEMS ARISING IN OPTIMIZATIONS Pennsylvania State University	Earlow Jerse	N 35 07/02/91 \$140,304	GLASSMAN 91-NM-158	
STABILITY OF THE EXACT INVERSION OF A FIXED-ENERGY SCHEDULING DATA Kansas State University	Ram Alexander	N 39 23/01/91 \$339,321	D NACHMAN 91-NM-137	
OPTIMAL REDUCED-ORDER DECENTRALIZED ESTIMATION BY TIME-SCALE DECOMPOSITION: A UNIFIED APPROACH Kent State University	Don Lan	N 12 04/02/91 \$51,046	SJOGREN 91-NM-149	
BAYESIAN ROBUSTNESS THROUGH PERTURBATION DIAGNOSTICS Univ of Cincinnati	Sivaganesan Siva	N 02 12/03/91 \$38,552	D SJOGREN 91-NM-189	

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RIGOROUS MATHEMATICS FOR DEVELOPING COME-TEAM RECONSTRUCTION ALGORITHMS Univ of Cincinnati	Smith	N 36 20/03/91 \$231,979	NACHMAN 91-NM-196	
THE FAST MULTIPOLE METHOD FOR SOLVING INVERSE ELECTROMAGNETIC SCATTERING PROBLEMS Rockwell International, Science Center	MURPHY	N 24 02/02/91 \$199,906	NACHMAN 91-NM-160	
ADDUCTIVE NETWORKS FOR IMAGE COMPRESSION AND RECONSTRUCTION Abtech Corporation	Drake	N 06 10/01/91 \$50,070	SJOGREN 91-NM-125	
PROBABILITY AND STATISTICS APPLIED TO THE THEORY OF ALGORITHMS Univ of Pennsylvania	Steele	N 05 05/03/91 \$14,218	A SJOGREN 91-NM-181	\$14,218 01/05/91 \$14,218
SUPPORT THE SCARCE ON MATHEMATICAL SCIENCES, NATIONAL RESEARCH COUNCIL National Academy of Sciences	Metzger	N 08 13/02/91 \$42,500	A HOLLAND 91-NM-165	\$42,500 31/03/91 \$42,500
NEWTON-TYPE METHODS FOR MULTIDIMENSIONAL INVERSE SCATTERING PROBLEMS IN INHOMOGENEOUS MEDIUM Univ of North Carolina	Klibanov	N 26 04/03/91 \$355,022	NACHMAN 91-NM-186	
EFFECTS OF TIME AND SPACE DISCRETIZATION ON NUMERICAL SIMULATION Science Applications International Corp	Auerbach	N 25 02/01/91 \$275,079	D NACHMAN 91-NM-115	
FAST MULTIPOLE METHODS FOR SCATTERING COMPUTATION Hughes Aircraft Corp Research Lab	Kandrup	N 23 17/01/91 \$1,781,225	A NACHMAN 91-NM-129	\$182,606 01/07/91 \$2,383,951
A HIGH-ORDER INTER-PATTERN ASSOCIATION MODEL FOR FEATURE EXTRACTION AND DISTORTION-INVARIANT PATTERN RECOGNITION Physical Optics Corporation	Lu	N 06 16/01/91 \$49,993	SJOGREN 91-NM-124	

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HIGH PERFORMANCE COMPUTING (HPC) METHODS AND SYSTEMS FOR PARTIAL DIFFERENTIAL EQUATIONS Purdue Research Foundation	Alco John	R 36 26/02/91 \$535,301	GLASSMAN 91-NM-190	
INNOVATIVE METHODS FOR EFFICIENT SIGNAL/IMAGE ANALYSIS AND RECONSTRUCTION Jnyx Sciences Corp.	Rhodes Graham	N 06 31/01/91 \$50,000	SJOGREN 91-NM-148	
ROBUST FIXED-STRUCTURE CONTROL Harris Corp. Government Systems Sector	Jernstein Jennie	N 36 20/02/91 \$285,726	JACOBS 91-NM-170	
IMAGE ANALYSIS TECHNOLOGY APPLIED TO PROBLEMS IN CRYSTALLOGRAPHY Sensor Analysis Group Autometric Inc.	Gordon Daniel	N 12 06/03/91 \$74,962	A NACHMAN 91-NM-185	\$74,962 01/07/91 \$74,962
NEW METHODS FOR THE INVESTIGATION OF TURBULENT SHEAR FLOWS Rockefeller University	Strovich Lawrence	N 36 20/02/91 \$421,863	NACHMAN 91-NM-168	
(SFC) CLUTTER REJECTION SIGNAL PROCESSING Scientific Systems Co	Manwood Shen	N 06 31/01/91 \$53,964	A SJOGREN 91-NM-144	\$49,936 10/07/91 \$59,964
NONLINEAR CONTROL SYSTEMS Washington University	Syrnes Christopher	N 36 23/01/91 \$288,545	JACOBS 91-NM-135	
PROBABILISTIC ANALYSIS OF NP-COMPLET. PROBLEMS Ohio State University	Chen WanJoo	N 24 06/02/91 \$51,937	GLASSMAN 91-NM-152	
MODELLING, ANALYSIS AND CONTROL OF MULTIPLE-LINK STRUCTURES Georgetown University	Langese John	N 36 26/02/91 \$355,044	JACOBS 91-NM-179	

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INVESTIGATOR Mitter	Sanjoy	Akylas	Block	John	Stephen	George	Robert	S. P.	Basic	
STATUS PROGRAM MANAGER PROPOSAL #	D JACOBS 91-NM-121	NACHMAN 91-NM-200	NACHMAN 91-NM-199	A JACOBS 91-NM-118	JACOBS 91-NM-176	NACHMAN 91-NM-178	HOLLAND 91-NM-202	A JACOBS 91-NM-140	NACHMAN 91-NM-174	\$74,750 15/05/91 \$240,575
TYPE/MONTHS RECEIVED AMOUNT	N 12 08/01/91 \$18,557	N 36 26/03/91 \$211,963	N 06 26/03/91 \$10,265	N 36 08/01/91 \$240,575	N 36 25/02/91 \$385,370	N 36 25/02/91 \$801,606	N 12 23/03/91 \$128,905	N 06 29/01/91 \$35,000	N 06 20/02/91 \$2,000	\$15,000 15/02/91 \$15,000

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INVARIANT IMBEDDING TECHNIQUES FOR INVERSE SCATTERING OF ELECTROMAGNETIC WAVES Texas A and M University	Nelson Paul	N 24 20/03/91 \$211,362	NACHMAN 91-NM-191	
WAVE PROPAGATION IN TWO MODELS FOR THE CARDIAC CONDUCTION SYSTEM: A SINGULAR PERTURBATION ANALYSIS Montana State University	Jackery Jack	N 24 20/03/91 \$52,799	NACHMAN 91-NM-193	
A GRAPH PARTITION PROBLEM WITH APPLICATIONS TO JOB SCHEDULING AND VLSI DESIGN Arizona State University	Sen Arundhara	N 24 20/03/91 \$104,525	GLASSMAN 91-NM-195	
APPLICATIONS OF GEOMETRIC ALGORITHMS TO MACHINING, MANUFACTURING, AND DESIGN Cornell University	Kutterbecker Daniel	N 36 05/02/91 \$550,000	A GLASSMAN 91-NM-156	\$150,000 01/05/91 \$550,000
COMPUTATIONAL AND MATHEMATICAL INVESTIGATIONS IN OPTIMIZATION Cornell University	Blanc Robert	N 12 12/02/91 \$100,000	A GLASSMAN 91-NM-154	\$100,000 01/05/91 \$100,000

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DIFFERENTIAL PHOTOREFLECTIONS FOR OPTICAL PROFILING OF ELECTRIC FIELDS IN ELECTRONIC MATERIALS Univ of Minnesota	Byron Michael	N 24 15/01/91 \$134,927	D SCHLOSSBER 91-NP-043	
BASIC STUDIES IN PLASMA WAVE INTERACTIONS Univ of Wisconsin	Scharrer John	R 36 15/01/91 \$460,780	A BARKER 91-NP-044	\$68,257 01/05/91 \$460,780
EFFICIENCY & POWER HANDLING OPTIMIZATION IN DIELECTRIC L BRATING MILLIMETER WAVE CERAMIC FASE ELECTRON DEVICES Univ of Wisconsin	Scharrer John	N 36 17/01/91 \$400,420	BARKER 91-NP-045	
DEVELOPMENT OF AN X-RAY LASER SYSTEM PRODUCED WITH AN ULTRA-SHORT PULSE HIGH INTENSITY LASER AMC Fusion Inc	Charaf George	N 03 23/01/91 \$49,905	SCHLOSSBER 91-NP-047	
COMPACT SOURCE OF COHERENT UV/VUV RADIATION Jedcon Research	Bramford Douglas	N 06 24/01/91 \$49,336	SCHLOSSBER 91-NP-054	
ULTRAFAST LASER TECHNIQUES TRI International	Hahn Hanspeter	N 36 04/02/91 \$449,932	KELLEY 91-NP-066	
SHORT WAVELENGTH INJECTION LASERS Astralux	Fry Kirk	N 06 05/02/91 \$50,000	SCHLOSSBER 91-NP-070	
LOW COST SOLID STATE ELECTRON BEAM PUMPED UV-VIS LASER APA Optics Inc	Khan H. Adif	N 06 07/02/91 \$49,982	SCHLOSSBER 91-NP-075	
EXPERIMENTAL STUDIES OF FUNDAMENTAL ONE- AND TWO- PHOTON LASING PROCESSES Univ of Oregon	Mossberg Thomas	R 36 08/03/91 \$376,917	D SCHLOSSBER 91-NP-091	

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NONLINEAR INTERACTION OF INTENSE ELECTROMAGNETIC WAVES WITH INHOMOGENEOUS PLASMAS Univ of Maryland	C.	N 36 12/03/91 \$260,000	BARKER 91-NP-092	
APPLICATION OF SUPERSYMMETRY TO ATOMIC SYSTEMS & CHEMICAL PHASES Univ of Wisconsin	A.	N 36 19/03/91 \$223,052	KELLEY 91-NP-094	
DEVELOPMENT OF A COMPACT, INEXPENSIVE X-RAY LASER DRIVER Multilayer Optics & X-Ray Technology Inc	Ol	N 05 23/01/91 \$50,000	SCHLOSSEER 91-NP-049	
A COMPACT, ROBUST & LIGHT WEIGHT SOFT X-RAY DIODE USING FIELD EMISSION SOURCES Multilayer Optics & X-Ray Technology Inc	Arifuro	N 05 23/01/91 \$50,000	SCHLOSSEER 91-NP-050	
COMPACT, SELF-CONTAINED WDF LASERS Potomac Photonics Inc.	C. Paul	N 05 23/01/91 \$43,792	A SCHLOSSBER 91-NP-051	\$49,792 01/07/91 \$49,792
40 OPTICALLY PUMPED 10 - 40 MV VACUUM ULTRAVIOLET LASER (COMPACT, SPECTRALLY BRIGHT, SHORT WAVELENGTH SOURCES) Physical Research Inc.	Miko	N 06 24/01/91 \$43,382	SCHLOSSBER 91-NP-052	
DIFFRACTION ENHANCED HIGH BRIGHTNESS WAVE X-RAY SOURCE Radiation Science Inc.	Allen	N 06 24/01/91 \$52,108	SCHLOSSBER 91-NP-058	
HIGH INTENSITY, NARROW BAND MICROWAVE DRIVEN UV FLUORESCENCE LAMPS Columbia Research Instruments Corp.	Rosemary	N 05 24/01/91 \$50,000	SCHLOSSBER 91-NP-055	
FORMATION & ENHANCEMENT OF H(-) IONS IN A MAGNETICALLY FILTERED MULTICUSP ION SOURCE/MEASUREMENT OF NEUTRAL ATOMIC/MOLECULAR..... Lawrence Berkeley Laboratory	Ka-Ngo	N 12 15/02/91 \$190,000	A LUPO 91-NP-082	\$190,000 01/02/91 \$190,000

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PICOSSECOND PHASE CONJUGATIONS: NEW APPLICATIONS, DEVICES, AND MATERIALS Univ of Southern California	Palmer Jack	7 30 13/02/91 \$909,543	SCHLOSSER 91-NP-079	
A STUDY OF AN ENHANCED LASER-PLASMA Jamar Technology Company	Shields Harry	7 00 07/02/91 \$43,352	SCHLOSSER 91-NP-076	
IMAGING THE EARTH'S INTERIOR - DETAILED STUDIES OF THE EARTH'S SEISMIC STRUCTURE WITH NEW GLOBAL AND PORTABLE ARRAY National Science Foundation	Well Daniel	N 04 05/03/91 \$700,000	A LEMKOWICZ 91-NP-089	\$6,700,000 15/02/91 \$700,000
COMPACT, PULSED POWER DRIVER, 400-1234 AUGUSTON LASER Science Research Laboratory	Krishnan Mahadevan	N 00 24/01/91 \$49,987	SCHLOSSER 91-NP-053	
XUV AND SOFT X-RAY QUASI-MONOCROMATIC LIGHT SOURCE Schwartz Electro-Optics Inc.	Moulton Peter	N 00 23/01/91 \$43,234	SCHLOSSER 91-NP-046	
STUDY OF ULTRAHIGH MAGNETIC FIELD PRODUCTION BY PINCH PLASMA LINER COMPRESSION Washington State University	Fowler G. Richard	N 24 01/02/91 \$230,213	BARKER 91-NP-067	
HIGH POWER, HIGH FREQUENCY RADIATION FROM BEAM-PLASMA INTERACTIONS Univ of California	Benford Gregory	7 12 15/01/91 \$100,000	A BARKER 91-NP-042	\$50,000 01/03/91 \$100,000
STUDIES OF OPTICAL PHASE CONJUGATIONS AND APPLICATIONS Univ of California	Yeh Poehi	N 36 27/02/91 \$362,270	A SCHLOSSER 91-NP-087	\$40,000 01/07/91 \$299,829
OPTICAL MILLIMETER-WAVE INTERACTIONS: MEASUREMENTS, GENERATION, TRANSMISSION AND CONTROL Inst. of Electrical & Electronics Engrs	Mangemann Robert	N 08 31/01/91 \$15,000	A SCHLOSSER 91-NP-065	\$15,000 01/05/91 \$15,000

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EIGHTH OPTICAL FIBER SENSORS CONFERENCE Inst. of Electrical & Electronics Engg	Robert	N 09 21/03/91 \$10,000	SCHLOSSBER 91-NP-096	
INTERNATIONAL SYMPOSIUM ON THE PHYSICS & CHEMISTRY OF FINITE SYSTEMS: FROM CLUSTERS TO CRYSTALS Virginia Commonwealth University	Jana	N 12 01/02/91 \$10,000	KELLEY 91-NP-066	
A NOVEL SURFACE-CHARGE DEVICE FOR OPTICAL PUMPING OF SHORT-WAVELENGTH GAS LASERS Dr. Beverly Ivy and Associates	Beverly Ivy	N 09 07/02/91 \$50,000	SCHLOSSBER 91-NP-074	\$128,058 01/07/91 \$128,058
MOLECULAR ASSOCIATION AND LASER-ASSISTED ELECTRON-EXCITED ATOM COLLISIONS Georgia Tech Research Corporation	Slattery	R 12 15/03/91 \$125,058	A KELLEY 91-NP-093	
PORTABLE MULTI-WAVELENGTH COFT X-RAY LASER Princeton X-Ray Laser, Inc.	Law	N 06 05/02/91 \$49,955	SCHLOSSBER 91-NP-069	
ELECTRON IMPACT IONIZATION & ATTACHMENT STUDIES OF MOLECULES OF INTEREST TO PULSE POWER TECHNOLOGY Jet Propulsion Laboratory	Drivestava	N 12 14/02/91 \$50,000	A LUPO 91-NP-081	\$60,000 01/02/91 \$60,000
RESEARCH ON LASER RANGING AND ADVANCED TIME TRANSDUCER TECHNIQUES Naval Research Laboratory	White	N 07 06/03/91 \$50,000	A LENKOWICZ 91-NP-090	\$50,000 15/02/91 \$50,000
A COMPACT Nd:GLASS DRIVER FOR A HIGH BRIGHTNESS X-RAY LASER Pasadena Applied Sciences, Inc	Lerner	N 06 06/02/91 \$66,235	SCHLOSSBER 91-NP-077	
EXCITATION OF NUCLEI BY ANTINEUTRON ANNIHILATION AT REST Pennsylvania State University	Smith	N 12 31/01/91 \$45,000	A KELLEY 91-NP-064	\$45,000 01/05/91 \$45,000

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TITLE INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ELECTRON-BEAM CONTROLLED SEMICONDUCTOR SWITCHES Old Dominion University	Schoenbach	N 03 29/01/91 \$50,000	A LUPU 91-NP-061	\$50,000 01/02/91 \$50,000
WORKSHOP ON HIGH SPEED/HIGH FREQUENCY OPTOELECTRONICS United Engineering Trustees Inc	Freiman	N 12 14/02/91 \$10,000	A SCHLOSSBER 91-NP-080	\$10,000 15/03/91 \$10,000
A COMPACT, TUNABLE, VUV EXCIPLEX LASER Atomic Engineering, Cor	Lu	N 09 03/02/91 \$50,000	SCHLOSSBER 91-NP-078	
NON-NEUTRAL PLASMA CONFINEMENT IN MAGNETIC CUSP GEOMETRIES (C171) Directed Technologies, Inc.	Kuhn, Jr.	N 12 19/02/91 \$210,000	BARKER 91-NP-083	
EXOTIC ATOM FORMATION Univ of Cincinnati	Russell	N 24 14/01/91 \$106,733	KELLEY 91-NP-041	
WIRE SURFACE PLASMA UV SOURCE American International Technologies Inc.	Makiboulou	N 09 05/02/91 \$49,182	SCHLOSSBER 91-NP-071	
COMPACT, SPECTRALLY BRIGHT, SHORT-WAVELENGTH SOURCES Amparo Corporation	Grand	N 06 05/02/91 \$50,000	SCHLOSSBER 91-NP-073	
ELECTRON COLLISIONAL EXCITATION AND IONIZATION OF ATOMS AND IONS Louisiana State University	Taylor	N 36 22/02/91 \$115,352	KELLEY 91-NP-095	
METAL-ORGANIC VUV LIGHT SOURCE MicroOptics Technologies, Inc.	Buchnoltz	N 06 05/02/91 \$54,976	SCHLOSSBER 91-NP-072	

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MERGED BEAM STUDIES OF LASER STIMULATED RADIATIVE RECOMBINATION Univ of Western Ontario	Mitchell J. Smith	R 12 29/01/91 \$56,235	A KELLEY 91-NP-062	\$56,235 01/05/91 \$56,235
NOVEL NONLINEAR PHENOMENA (#90M-0732/J27,33) Hughes Aircraft Co	Lisa Juan	R 36 14/01/91 \$323,349	SCHLOSSBER 91-NP-040	
FORTY-FOURTH ANNUAL GASTOUS ELECTRONICS CONFERENCE 1991 (CUMM235-212) Univ of New Mexico	Anderson Harold	N 12 31/01/91 \$5,000	D BARKER 91-NP-053	\$10,000 01/05/91 \$10,000
AN ASSESSMENT OF PLASMA PROCESSING OF MATERIALS National Academy of Science	Taylor Ronald	N 06 07/01/91 \$10,000	A BARKER 91-NP-028	
COMMITTEE ON GEODESY National Academy of Science	Burke Kevin	N 12 10/01/91 \$15,000	LEMKOWICZ 91-NP-039	
ODON RESEARCH CONFERENCE ON NONLINEAR OPTICS AND LASERS Jordan Research Conference Inc	Gruickshank A.	N 12 19/02/91 \$10,000	A SCHLOSSBER 91-NP-034	\$10,000 01/03/91 \$10,000
HIGH FLUX, DUAL PHOTON-ELECTRON SOURCE FOR ULTRASOFT X-RAYS Pacific X-ray Company, Inc	Fujimura Francis	N 05 24/01/91 \$50,000	SCHLOSSBER 91-NP-056	
PULSED MICROWAVE BREAKDOWN OF SOLID DIELECTRIC/GAS INTERFACES Texas Tech University	Kristiansen Magne	P 12 05/03/91 \$85,145	A LUPO 91-NP-088	\$85,145 15/05/91 \$85,145
EXPERIMENTAL PROPERTIES OF THE PLASMA ARMATURE IN AN ELECTROMAGNETIC LAUNCHER Air Force Armament Laboratory	Cobb Kenneth	N 06 21/03/91 \$70,000	A BARKER 91-NP-095	\$70,000 01/04/91 \$70,000

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RESEARCH STUDIES ON ELECTROMAGNETICALLY INDUCED TRANSPARENCY Stanford University	HARRI S.	R 36 22/02/91 \$2,306,942	SCHLOSSBER 91-NP-086	
SOLAR ACTIVITY CYCLE New Jersey Institute of Technology	Goode onlin	R 36 29/03/91 \$373,443	RADOSKI 91-NP-097	
INVESTIGATION OF NATURAL PHENOMENA WITHIN SPACE ENVIRONMENTS Johns Hopkins University	Ken. Chins	R 36 25/01/91 \$661,200	RADOSKI 91-NP-060	
A COHERENT X-RAY SOURCE USING TRANSITION RADIATION Adelphi Technology, Inc.	Pietrus Helvin	R 06 23/01/91 \$49,995	A SCHLOSSBER 91-NP-046	\$49,995 10/07/91 \$49,995
A HIGH BRIGHTNESS TRANSITION RADIATION SOURCE FOR X-RAY LITHOGRAPHY Adelphi Technology, Inc.	Pietrus Helvin	R 06 24/01/91 \$49,998	SCHLOSSBER 91-NP-057	

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TITLE	INSTITUTION	INVESTIGATOR	TYPE/MONTHS RECEIVED AMOUNT	STATUS PROGRAM MANAGER PROPOSAL #	INITIATE START DATE TOT AMT
ESTABLISHING A PERCEPTUAL FRAME OF REFERENCE FOR ACTION	Univ of Edinburgh	Lee	P 12 13/02/91 \$40,000	MCDUGAL 91-EX-005	
ESTABLISHING A PERCEPTUAL FRAME OF REFERENCE FOR ACTION	Univ of Edinburgh	Lee	R 12 13/02/91 \$40,000	A OWENS 91-EX-006	\$40,000 01/07/91 \$40,000
EXPLORATION OF THE CUSP BEHAVIOR OF THE RENORMALIZATION GROUP FLOW VISCOSITY NEAR THE GUTENBERG NUMERICAL Universite Libre de Bruxelles		Leon	N 05 26/03/91 \$9,000	A OWENS 91-EX-011	\$9,000 01/07/91 \$9,000
CRYSTAL-SOLVATE PHASES IN HYDROCARBONIC MICRO POLYMERS	Technion--Israel Institute of Technology	Yacobi	N 12 15/01/91 \$19,500	A OWENS 91-EX-003	\$19,500 01/04/91 \$19,500
VISIBLE CHEMICAL LASERS: REACTIONS OF METASTABLE OXYGEN & THE STUDY OF THE PER MYOCHROMIC EMISSION Laboratoire de Spectrometrie Ionique ...		Roger	N 12 13/02/91 \$20,200	A OWENS 91-EX-004	\$20,200 01/06/91 \$20,200
SOLAR LE IONOSPHERIC	Union Meteorological Institute	Viggo	A 12 13/02/91 \$20,970	OWENS 91-EX-007	\$20,970 01/04/91 \$20,970
SPACE SUPPORT FOR VHDL DESIGN	Cambridge University (Pembroke Street)	Gordon	N 24 14/03/91 \$49,000	A OWENS 91-EX-009	\$23,400 01/07/91 \$49,000
STUDY OF THE HOMOGENEITY OF IVP JAPANESE Universidad de Valladolid/Fisica d		Juan	N 24 26/03/91 \$57,000	A OWENS 91-EX-010	\$25,000 15/07/91 \$57,000

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UNIVERSITY RESIDENT RESEARCH PROGRAM North Carolina A&T State University	Samuel	N 03 26/02/91 \$15,739	A CAVENDER 91-XO-015	\$15,739 01/06/91 \$15,739
UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Syracuse Univ - Dept Elec & Computer Eng	Gary	N 12 28/02/91 \$22,455	A BOLAND 91-XO-013	\$22,455 01/07/91 \$89,105
UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Old Dominion University	Terry	N 03 28/02/91 \$32,282	A CAVENDER 91-XO-014	\$32,282 01/05/91 \$32,282
NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP PROGRAM (NDSEGFP) Army Research Office	George	N 03 22/01/91 \$49,925	A CAVENDER 91-XO-007	\$49,925 01/01/91 \$49,925
DOE1 NATIONAL DEFENSE SCIENCE AND ENGINEERING GRADUATE FELLOWSHIP PROGRAM (NDSEG) Competitive Solicitation		N 19/02/91 \$3,591,075	A CAVENDER 91-XO-010	\$4,641,075 01/05/91 \$9,591,075
TEST CASE FOR CAPT EWING		A 01 23/01/91 110	EWING 91-XO-008	
Air Force Office of Scientific Research	ALAN			
AFIT FACULTY RESEARCH SUPPORT		N 07 26/02/91 \$205,550	A EWING 91-XO-012	\$205,550 25/02/91 \$205,550
Air Force Institute of Technology	Charles			
UNIVERSITY RESIDENT RESEARCH PROGRAM Massachusetts Institute of Technology	Gene	N 12 31/01/91 \$26,826	A BOLAND 91-XO-009	\$26,826 01/02/91 \$26,826
UNIVERSITY RESIDENT RESEARCH PROGRAM (URRP) Massachusetts Institute of Technology	Paul	N 12 25/02/91 \$29,198	A BOLAND 91-XO-011	\$29,198 14/02/91 \$29,198